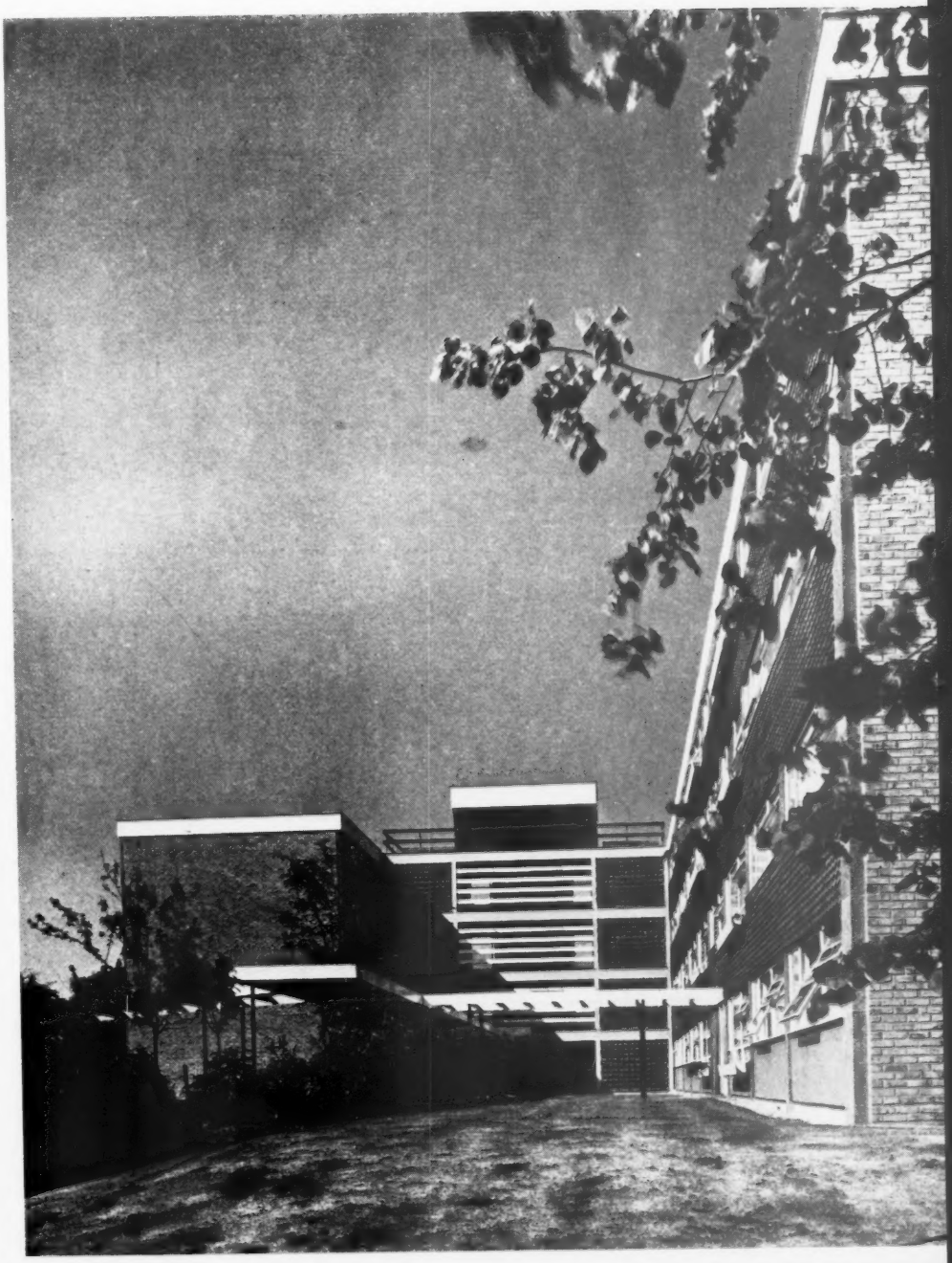
August 1961
Volume 68 Number 10
1s. 6d.

RIBA JOURNAL

Architecture Library
Architecture Library
Architecture Library
AUG 1961
UNIVERSITY OF LONDON



Problem: HEAT

Solution: COLT Ventilation

Place: LEYLAND MOTORS LIMITED
LEYLAND LANCASHIRE

The Architects, Messrs. Harry S. Fairhurst & Son, F.A.R.I.B.A., who designed this factory for Leyland Motors Ltd. installed Colt Ventilators throughout for three reasons:

1. They had confidence in Colt Ventilation from past experience.
2. They liked the low silhouette which would not impair the appearance of the building.
3. The installation weighed 72 tons *less* than any other ventilation equipment available, thereby showing considerable saving in structural costs.

In providing a permanent solution to this ventilation problem Colt have added yet another chapter to their record of success—success which has brought repeat orders from many world-famous concerns. Send for a free Data Manual to Dept. 36

COLT VENTILATION LIMITED SURBITON SURREY TELEPHONE: ELMBRIDGE 0161

RICHARDS TILES LTD

proudly announce

the opening of

NEW SHOWROOMS

at

NORTHUMBERLAND HOUSE

303–306 HIGH HOLBORN

LONDON W.C.1

(HOL. 5466)

Designers: Beverley Pick Associates

This new Ceramic Tile Centre is completely at the disposal of the profession.

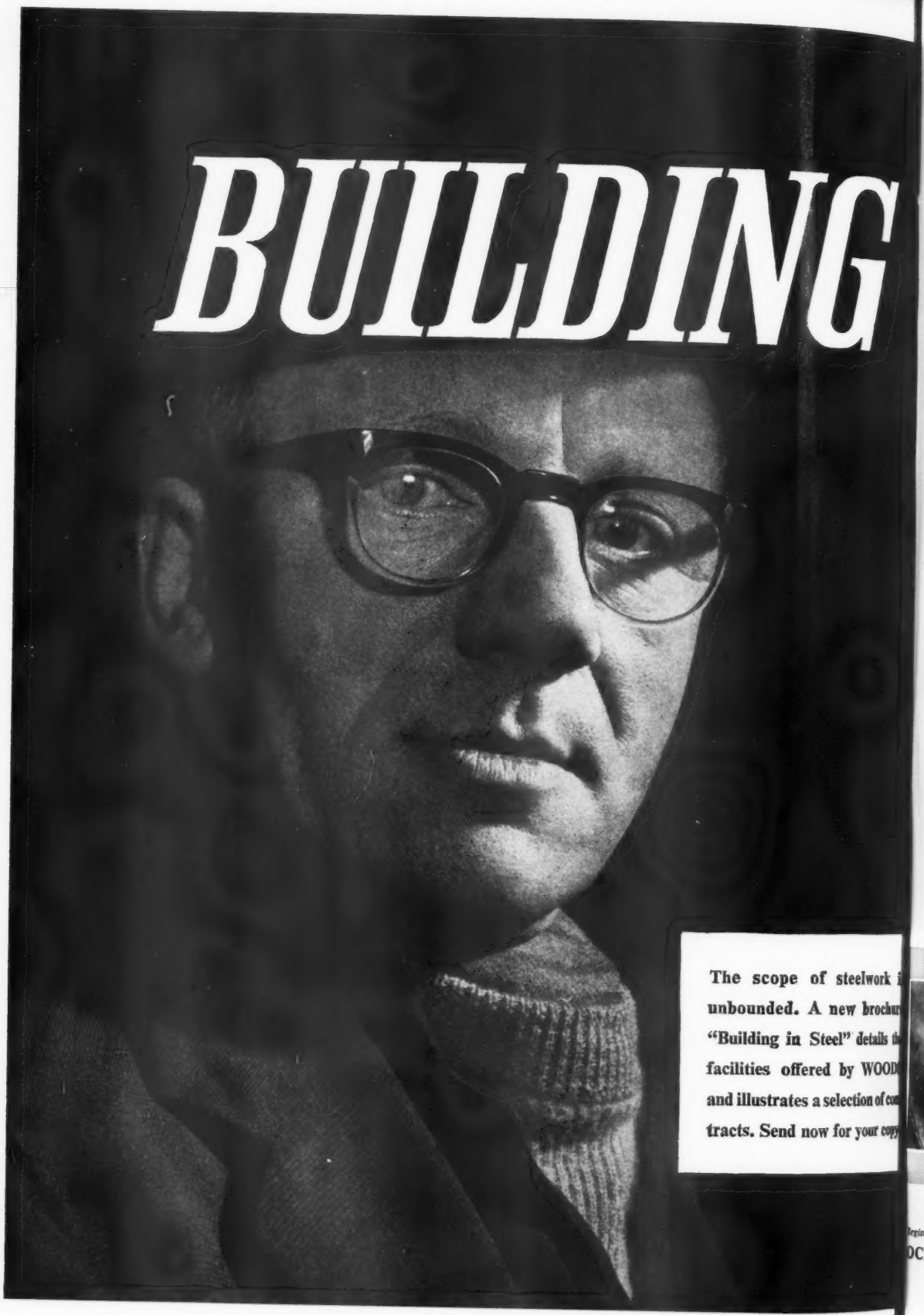
It constitutes a permanent display of fine ceramic tiles of every description, and embodies entirely new conceptions of tile treatment for walls or floors.

The most advanced exhibit of its kind, and outstanding in the ceramic tile industry.

We should welcome a visit from you.

RICHARDS TILES LTD

1837 TUNSTALL, STOKE-ON-TRENT 1961


BUILDING
The scope of steelwork i
unbounded. A new brochu
"Building in Steel" details th
facilities offered by WOOD
and illustrates a selection of co
tracts. Send now for your cop

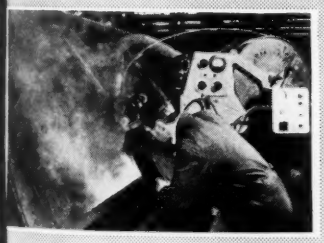
IN STEEL

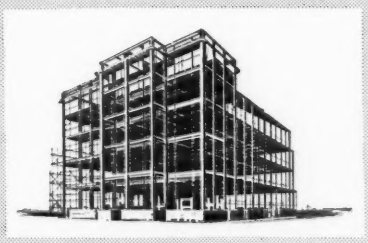
– the people who count

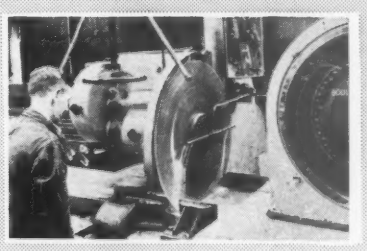
Working at Woods is a Heason family tradition. Henry Heason, chargehand plater, has a mere sixteen years to go to equal his father's fifty years service! Two brothers also work for the Company. Meticulous craftsmanship is vital in his work—he marks the steel for sawing, drilling and notching and, after machining, assembles it for riveting and welding. The experience and skill of men like Henry Heason have played a big part in maintaining for Woods their high reputation in the field of steel construction.

EDWARD WOOD & CO LTD

CONSTRUCTIONAL ENGINEERS







Registered Office and Works:
OCEAN IRONWORKS · TRAFFORD PARK · MANCHESTER 17
Tel: Trafford Park 2341 (10 *lines*)

London Office:
78 Buckingham Gate, S.W.1
Tel: Abbey 1948/9

WDIII

The Touch of Velvet...

612 Cogent

Leaderflush BRITAIN'S FINEST FLUSH DOOR

So soft and smooth to sight and touch, that is the quality that the exclusive VSF treatment imparts to the Leaderflush Flush Door. VSF not only provides the perfect surface, it reduces finishing costs to the absolute minimum, one application of polishing agent or varnish only being required for a really superb finish. Some say it is 'gilding the lily', for even without this treatment Leaderflush Flush Doors are unsurpassed for quality. Nevertheless, Leaderflush never cease to develop techniques which will assist the contractor on site.

VSF Velvet Seal Finish is a plywood surface sealing process which has been developed and is used exclusively by LEADERFLUSH. It can be applied to all Leaderflush Flush Doors required for polishing or varnish finish at no extra cost. Write for full details of our doors.

Leaderflush (Doors) LTD, TROWELL, NOTTINGHAM

Telephone: Ilkeston 4111 (6 lines)

LONDON OFFICE: BUSH HOUSE, ALDWYCH, LONDON W.C.2 Tel: COVent Garden 2243

DESIGN FLEXIBILITY

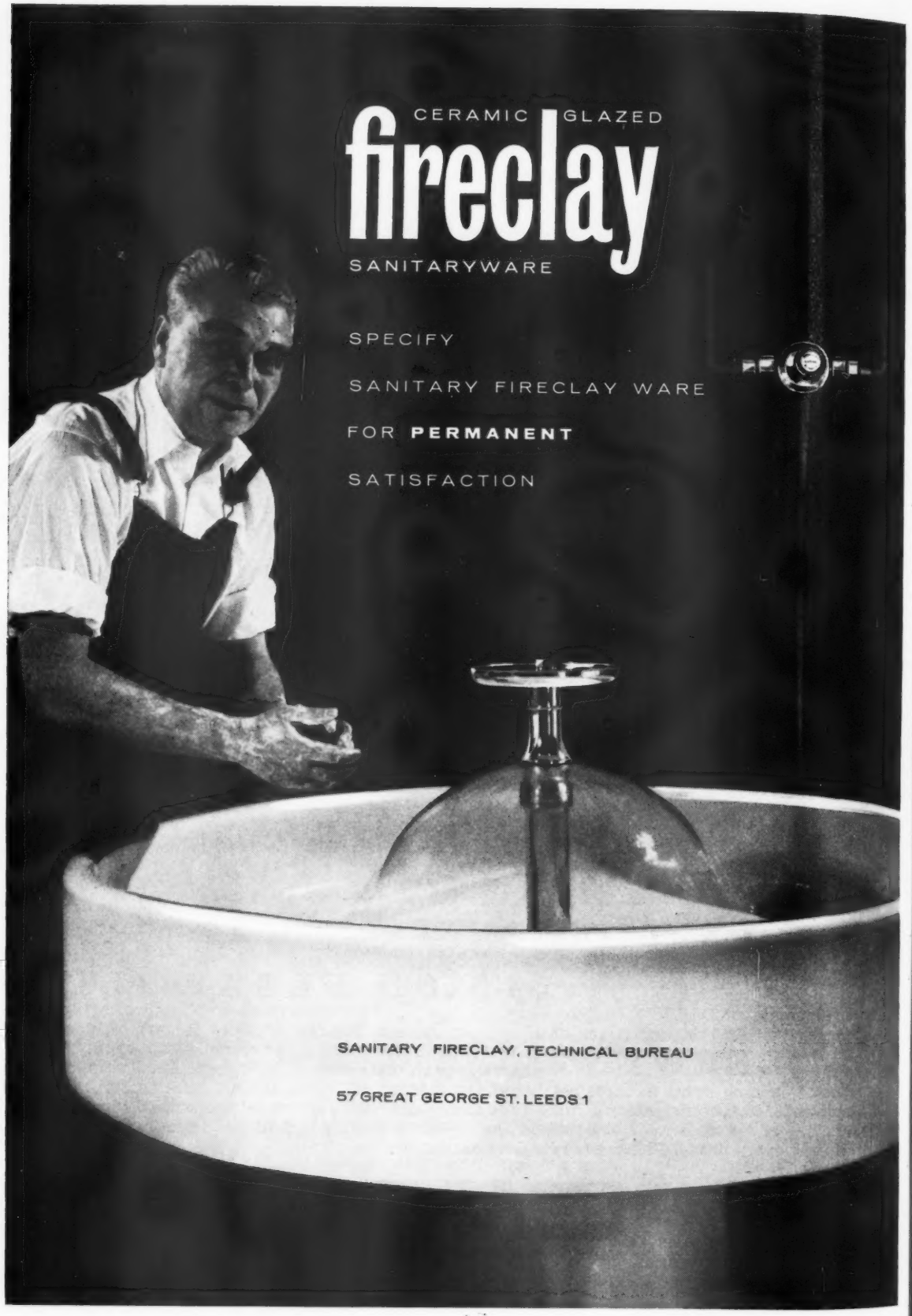
In the development of DERWENT it has been our continual aim to extend to the architect greater design freedom within the limitations of a modular system. DERWENT today is without doubt the most flexible of all systems of construction for single and two storey work. The panel range **DERWENT** is based on an absolute vertical module of 1'4" and permutations of six types of opening lights in three heights of 1'4", 2' 8" and 4'0", with various infill sections, give an infinite number of unit combinations. Just as the name DERWENT is synonymous with design freedom, so is the name of its makers — Vic Hallam Ltd. — the certain guarantee of expert advice and full co-operation at every phase. Please send for Derwent folder.

IMPORTANT ANNOUNCEMENT

All structural and carcassing timbers are now "Timborised"—an entirely new treatment giving permanent protection against decay and insect attack.

VIC HALLAM LTD TIMBER BUILDINGS DIVISION

LANGLEY MILL NOTTINGHAM


CERAMIC GLAZED
fireclay
SANITARYWARE
SPECIFY
SANITARY FIRECLAY WARE
FOR PERMANENT
SATISFACTION
SANITARY FIRECLAY. TECHNICAL BUREAU
57 GREAT GEORGE ST. LEEDS 1

WORKING WITH A WILL

"All clean and comfortable,
I sit down to write."
Letters of John Keats.

By A.F.B. Nail, A.M.I.San.E., A.M. Inst. W.

The link between cleanliness and comfort has been recognized for a considerable time; that between comfort and productivity for a much shorter period. Nevertheless, it is now well-established that workers produce more goods of better quality if their conditions are clean and congenial. There is not only the effect during their working hours to consider: good conditions mean less "time off" and good sanitation is the most important aspect of good conditions. Truly, if one is clean, then one is comfortable and can get down to work with a will.

Ceramic-Glazed Fireclay Sanitaryware accords well with modern concepts of industrial architecture. Just as the present-day factory is airy, spacious and well-lit, with a judicious use of colour in its decoration, so are modern designs of Fireclay Sanitaryware of simple and harmonious outline, free from complicated shapes which may create dust and germ traps, thus accentuating the gleaming, high-lustre glaze – as though inviting the user to challenge its sparkling cleanliness.

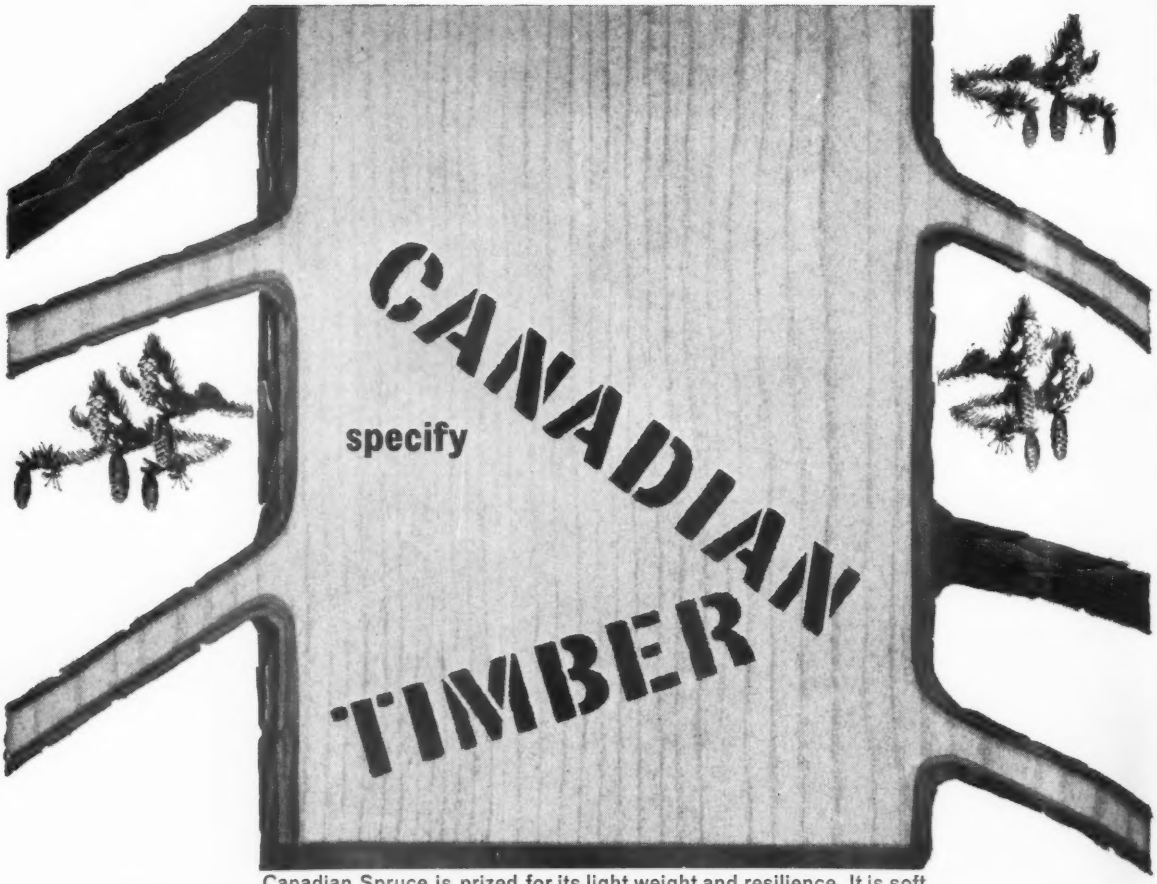
Fireclay Sanitaryware has a special contribution to make under the arduous conditions of factory installation, because it possesses unrivalled strength—the foundation of durability—and its hard, tough body is the ideal base for a vitrified glaze, the feature by which all sanitary ware is judged. This glaze is impervious to acids and alkalis and provides a smooth, glossy, china-like surface which retains its pristine sheen with a minimum of attention.

Ceramic-Glazed Fireclay covers a complete range of appliances for factory use, whether in canteen, wash-room, toilet or first-aid post. There are hand basins for individual or range mounting; island-type ablution troughs for coping with rush periods; water closets with corbel-type pans for easy floor cleaning; sinks with draining boards and work slabs for kitchens; hospital-type appliances backed by years of co-operation with Architects in the design of sanitary equipment for operating theatres and wards and therefore highly suitable for any kind of casualty and first-aid post. Many of these articles can be obtained in colour if desired.

In any factory in which the welfare of the employees is given due prominence (not only for their own sakes, but for its effect on industrial relations and productivity) a full range of good sanitary appliances is essential. The "dark, satanic mills" of the industrial revolution have been out-moded by the Factory Acts and the requirements of H. M. Inspectors but, apart from such considerations, it has been shown that there are tangible benefits to be derived from the generous provision of amenities. Such generosity is best expressed – in this context – by the installation of well-designed Ceramic Glazed Fireclay Sanitaryware, a real essential for the modern factory and equally so for schemes of modernisation.

A fully illustrated booklet, published in the interest of more and better hygiene and sanitation is available on request.

See the exhibits at the Building Centres, London, Manchester, and Bristol.



Spruce

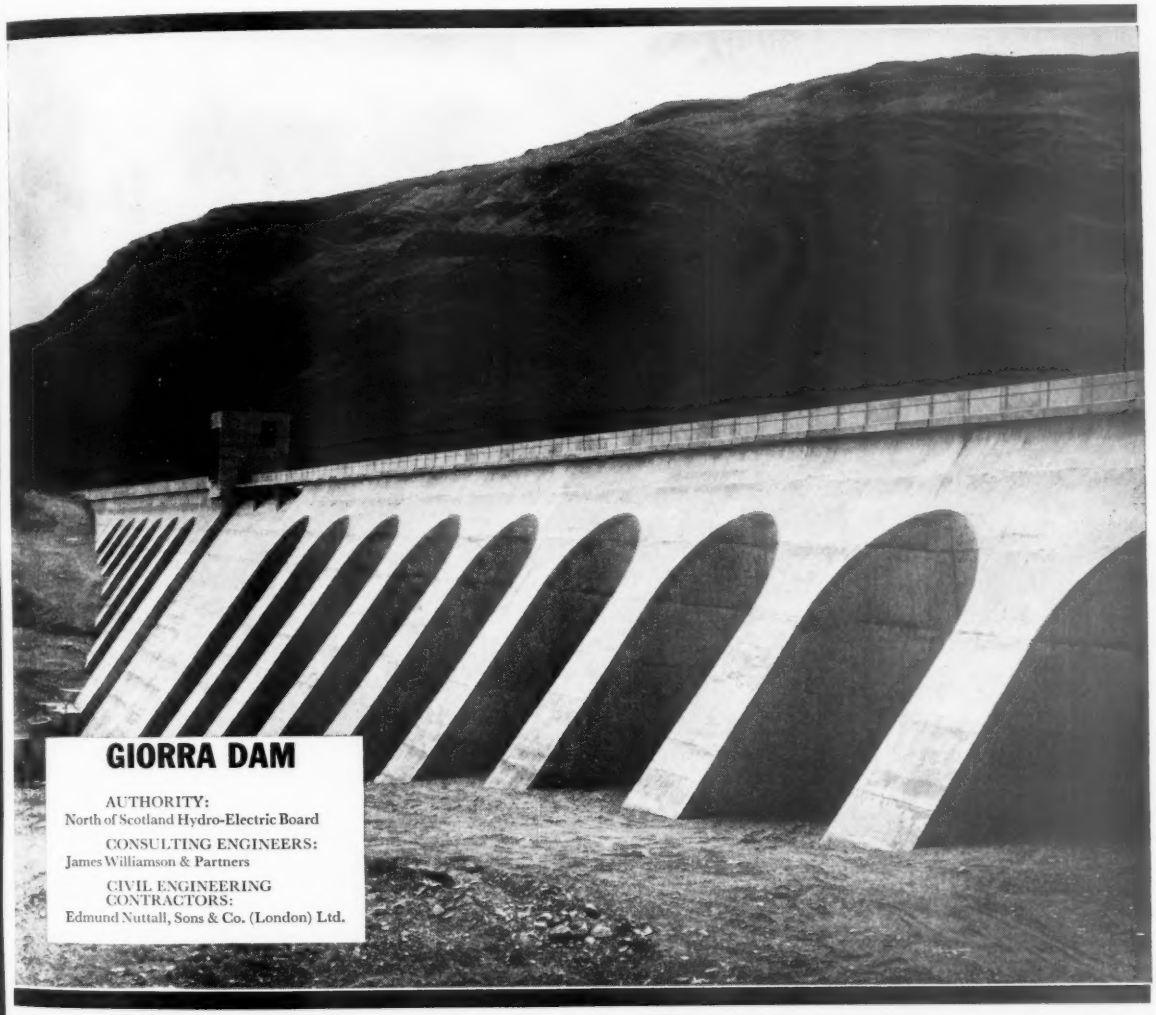
Canadian Spruce is prized for its light weight and resilience. It is soft of texture and even of grain. It handles easily, takes a smooth finish and holds nails well. When properly seasoned Canadian Spruce will not warp, twist or check. These properties strongly recommend this Canadian timber for light and medium construction work, boat building, case-making, scaffold planks, aircraft manufacture, musical instruments and many other purposes. For further information contact: The Commercial Secretary (Timber), Office of the High Commissioner for Canada, 1 Grosvenor Square, London W1, or The Canadian Trade Commissioner (Timber), 144 West George Street, Glasgow, C.2.

Construction framing with tough resilient Canadian spruce

TUNNEL

SUPPLIED THE

CEMENT



GIORRA DAM

AUTHORITY:
North of Scotland Hydro-Electric Board

CONSULTING ENGINEERS:
James Williamson & Partners

CIVIL ENGINEERING CONTRACTORS:
Edmund Nuttall, Sons & Co. (London) Ltd.

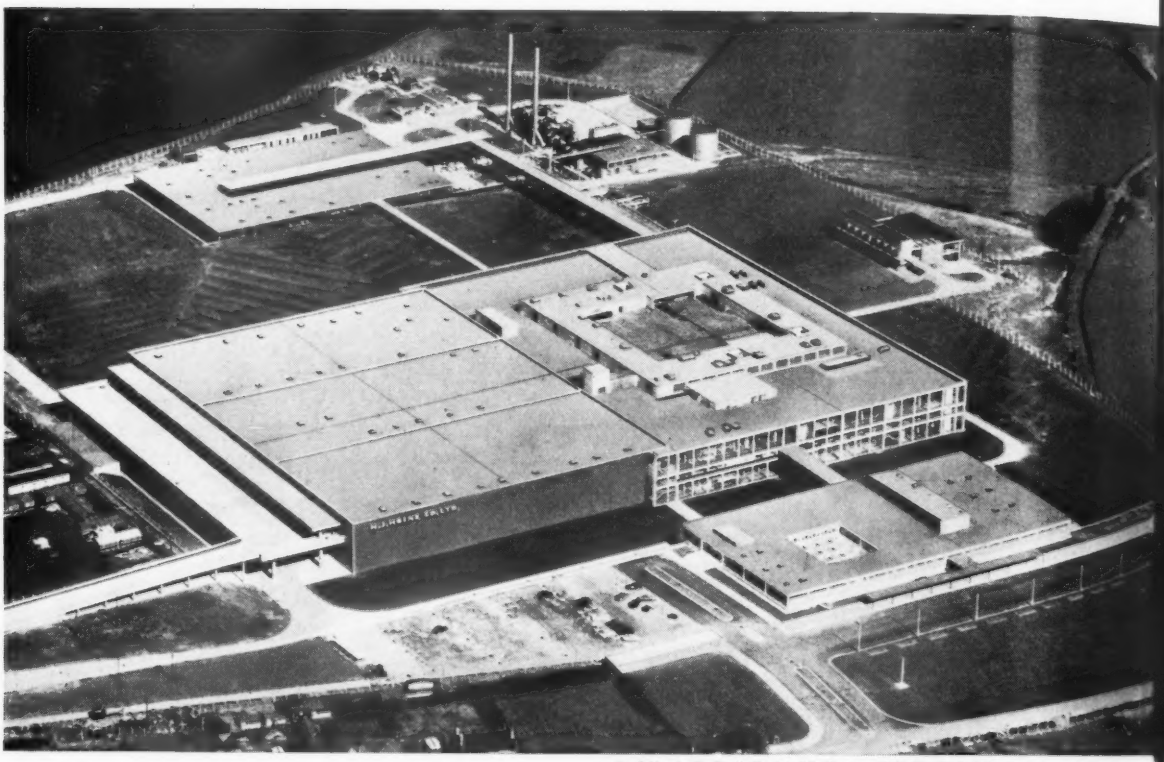
THE TUNNEL PORTLAND CEMENT COMPANY LIMITED

105, PICCADILLY, LONDON, W.1 · TELEPHONE: GROSVENOR 4100

TUNNEL CEMENT FOR RELIABLE BAG AND BULK DELIVERIES

CVS-47

*H. J. HEINZ COMPANY LIMITED chose..



Architect: E. D. Jefferiss Mathews, O.B.E., F.R.I.B.A., of J. Douglass Mathews & Partners.

Main Contractor: A. Monk & Company Limited, Warrington and London.

for their vast, new Food Plant . . . the biggest in Europe and the British Commonwealth

Excellence and dependability are qualities synonymous with the name of Heinz. These qualities also obtain in the design, structural techniques and materials involved in the construction of this fine new plant. **Glazed vitrified clay pipes** form the huge drainage system necessary to hygienic perfection, for they afford the greatest protection against interior and exterior attack and are the most permanent of all drainage materials.

* *H. J. Heinz Company Limited, Food Plant, Kitt Green, Wigan.*

Glazed Vitrified Clay Pipes

The unrivalled long life of **glazed vitrified clay pipes** is one of the main reasons for their wide specification and use to-day. Those responsible for our future drainage schemes cannot afford to take risks. They know there is no adequate substitute for **glazed vitrified clay pipes.**

For information write to the Engineer

NATIONAL SALT GLAZED PIPE MANUFACTURERS' ASSOCIATION

Hanover Court, Hanover Square, LONDON, W.1.
Telephone: MAYfair 0364

GLAZED VITRIFIED CLAY PIPES

Wonderful fittings

Kontite

There are over 22,000 types and sizes of KONTITE compression fittings . . . each one making a perfect joint with copper tube, each one designed to make plumbing easier, quicker and more economical . . . all cast in gunmetal to combat dezincification.

Specify KONTITE—every order for standard fittings is sent out immediately.

Fully illustrated catalogue will be supplied on request.

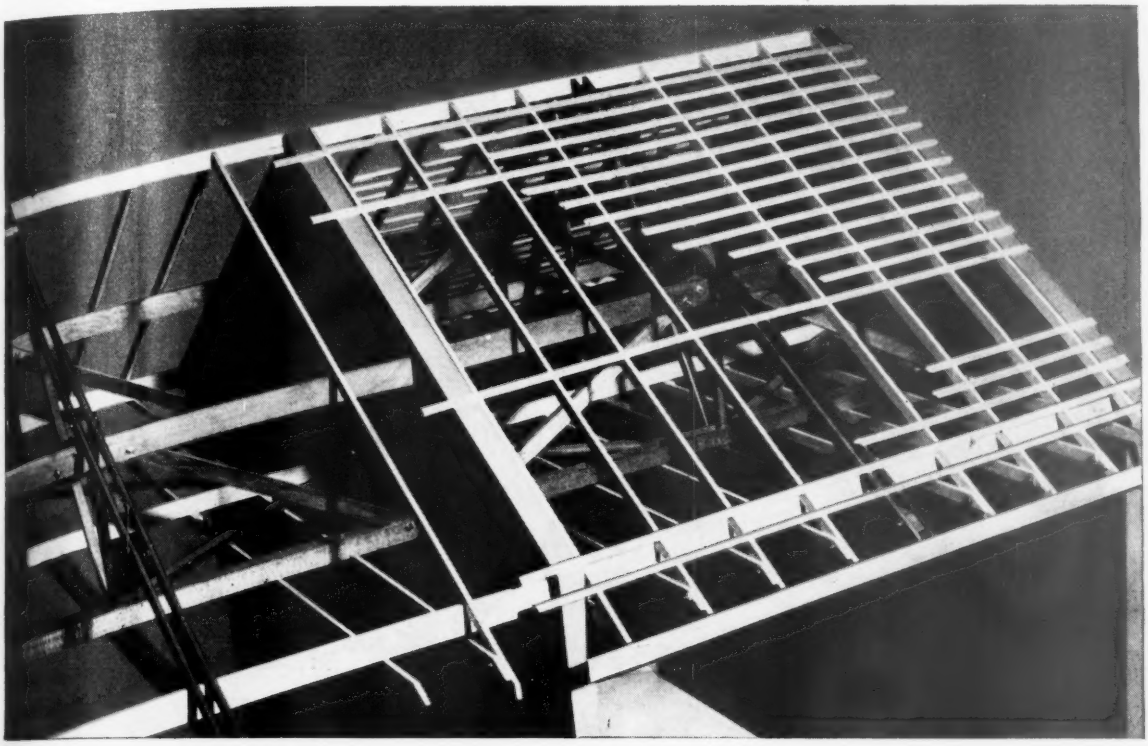
KONTITE

APPROVED TO BRITISH STANDARD

KAY & COMPANY (ENGINEERS) LTD • BOLTON • LANCS • TEL: BOLTON 21041/4

A MEMBER OF THE ALENCO GROUP OF COMPANIES

For modern roof construction in housing



NOTHING BUT WOOD

has all these advantages

Today, timber 'cross-wall' roofing is rapidly gaining ground in modern housing construction. This important new system offers:

- Outstanding structural and economic advantages in semi-detached and terraced housing schemes, as well as for certain types of blocks of flats
- Big economies in cost—'front' and 'back' walls are non-load bearing and require no foundations or elaborate footings
- When lightweight, low-cost timber infilling panels or curtain walling are used, overall cost is further reduced
- Greater freedom in interior planning, as 'cross-walls' support roofs and floors

Special roof designs for cross-wall construction have been prepared by the TDA. A folder containing plans of these, and further information, will be sent on request.

For full details of timber cross-wall roofing or timber curtain walling

CONSULT TDA

ISSUED BY THE TIMBER DEVELOPMENT ASSOCIATION LIMITED · 21 COLLEGE HILL · LONDON EC4

and branches at Birmingham, Bristol, Glasgow, Leeds and Manchester

TGA TD165

A phenomenal success in AMERICA

MULTI-ROOM AIR CONDITIONING PERSONALLY CONTROLLED IN EVERY ROOM

AIRAD, the unique multi-room air conditioning system, has arrived in Britain. Now, your clients in large multi-room buildings (built or going to be) can *personally* control the ventilation, temperature and humidity in each individual room. A revolutionary idea? That's putting it mildly. Designed to be used in multiple, every AIRAD unit provides *fully-automatic, personally-regulated, four-season air conditioning.* It warms in Winter. It cools in Summer. And in Spring and Autumn it gives a choice of *either* heating or cooling (no other system does). But that's not all. The AIRAD conditioner unobtrusively circulates *purified* air, extracts excess humidity and deadens outside noises to preserve inside quiet—all under *personal* automatic control. Moreover, installation and running costs are surprisingly low. Post the coupon today for illustrated literature —there's a lot to be said for AIRAD personally controlled air conditioning.

AIRAD LIMITED · UNSWORTH STREET · RADCLIFFE · NR. MANCHESTER · ENGLAND

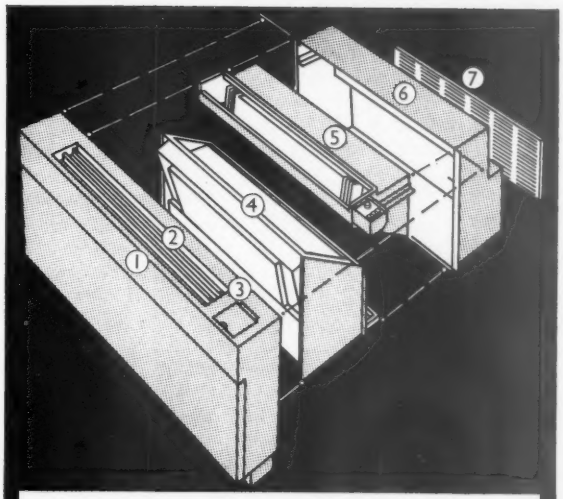
– and now available in BRITAIN!

INSTALLATION

AIRAD is designed for built-in through-the-wall installation. In new buildings the Wall Cabinet is put into place at time of construction, and the rest of the unit is installed as the structure nears completion. In existing buildings the Wall Cabinet is placed after the necessary hole has been cut through the wall. AIRAD suits every type of construction. In America this kind of system has been successfully installed in buildings with panel walls 2½" thick and fits equally well into 36" masonry walls. AIRAD may be installed in curtain-wall buildings or those with conventional windows.

POWER FOR HEATING, ETC.

AIRAD uses steam, circulating hot water or electricity for heating. Electricity is used for cooling and all other functions of true air conditioning which AIRAD so cheaply provides.



Exploded view of AIRAD conditioner

(1) Room Cabinet — front panel snaps off for easy access to Air Filter, Heater Section and Cooling Chassis

(2) Discharge Grille — air to be conditioned enters Room Cabinet near bottom of front panel and returns to room through top Discharge Grille

(3) Controls — consist of 3-position selector switch for *off*, *cool* and *heat*, plus Automatic Thermostat which controls both heating and cooling

(4) Cooling Chassis containing Compressor, Cooling-Drying Coil, Condenser, 2-Stage Positive-Pressure Ventilation Unit and Air Filter which filters both room and ventilating air

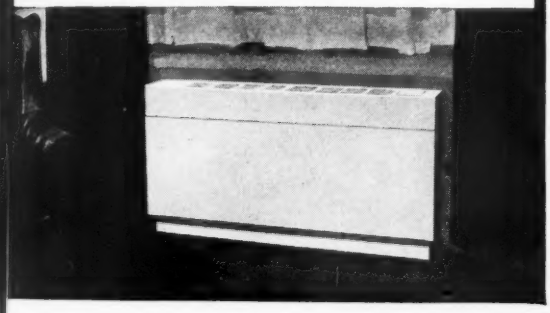
(5) Heater Section — Circulating Fans and Heating Coil which uses steam, circulating hot water or electricity

(6) Wall Cabinet

(7) Outdoor Louvre — made of anodised aluminium for corrosion resistance

Indoor view of AIRAD conditioner

Designed to be used in multiple and available in choice of attractive finishes. Ideal for hotels, hospitals, colleges, blocks of flats, etc. In existing buildings AIRAD usually occupies less space than the radiator it replaces.



AIRAD is made under licence from the Remington Machine Co. USA—producers of personal comfort equipment for 24 years.

AIRAD

PERSONALLY CONTROLLED AIR CONDITIONING

CATCH NEXT POST WITH THIS!!

AIRAD LTD. UNSWORTH ST. RADCLIFFE. NR. MANCHESTER, ENGLAND

I want to be among the first to get full details of the AIRAD air conditioning system. R.I.3

Name .....
(Block Capitals)

Address .....

.....

.....

TELEPHONE: RADCLIFFE 2335/2508 TELEGRAMS: TEXAS RADCLIFFE

now readily available!

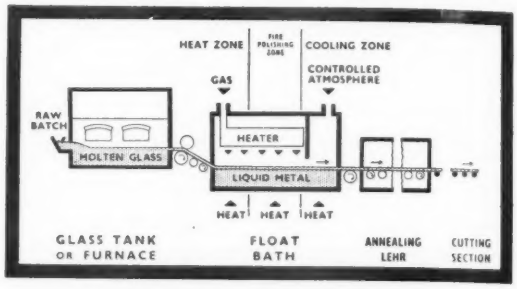
FLOAT

-the new glass with true clarity

FLOAT is now in full production. FLOAT, the glass which was a world-wide sensation when it was announced by Pilkingtons' in 1959. Devised and developed by Pilkingtons' in a £4m, seven-year project FLOAT marked the biggest advance in glass-making of the century. Here is a glass with a lustrous fire finish *and* perfectly parallel faces for real clarity, and true undistorted vision.

Supplies of FLOAT—in $\frac{1}{4}''$ substance and sizes up to 90″ x 175″—are available through the usual trade channels. Specify FLOAT for quality glazing.

6,000 sq. ft. of Float Glass were used in the glazing of the new British Embassy building, Washington, shown below.



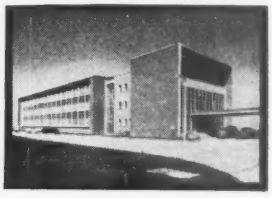
HOW FLOAT IS MADE

In the Float process the continuous ribbon of glass passes from the furnace to float on the surface of a molten metal at a controlled temperature. It emerges perfectly flat and distortion-free with a brilliant lustrous finish on both sides.

PILKINGTON BROTHERS LIMITED

St. Helens, Lancashire *St. Helens 4001* Selwyn House, Cleveland Row, St. James's S.W.1 *Whitehall 5672*

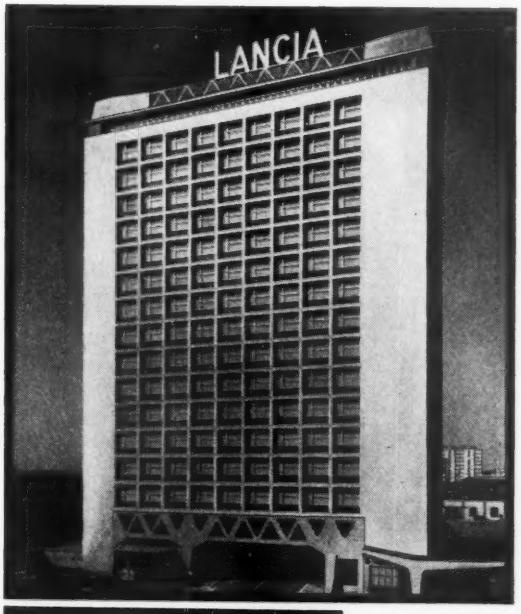
Lounge of the Council of Europe, Strasbourg, France.



The British Thomson-Houston Co. Ltd., Larne Factory, Northern Ireland.

67 COUNTRIES AGREE

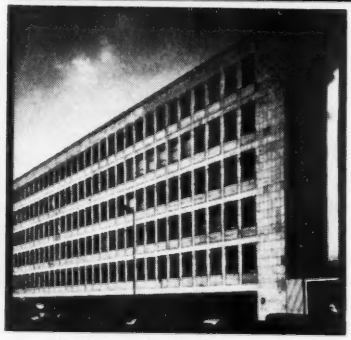
Whatever the world situation, at least the architects in sixty-seven countries are agreed about one thing—the excellence of Luxaflex Venetian Blinds. Throughout Europe, Africa, Asia and America, more than 20,000 Luxaflex Venetian blinds are installed *every day* in factories, offices, government buildings, department stores, schools, hospitals, universities and private homes. The architects who specify Luxaflex Venetian Blinds appreciate the fine workmanship in their robust construction and trouble-free performance. People who live or work with them appreciate their many practical advantages.



The Lancia Building, Turin, Italy.

Neubert Furnishing Store, Würzburg, W. Germany.

The Thalia Cinema, Rotterdam, Holland



The Ministry of Agriculture, Brussels, Belgium.

POINTS TO PLEASE ARCHITECTS AND THEIR CLIENTS:

Luxaflex cut ventilating and heating costs

Luxaflex Venetian Blinds give protection in summer from the sun's glare, keep buildings cool and airy. In winter they keep draughts out and warmth in by insulation.

Luxaflex cut lighting costs

Luxaflex Venetian Blinds make the most of natural light. They direct light rays from their natural downward path and reflect them evenly into all parts of the room. By reflection, Luxaflex makes better use of artificial light.

Luxaflex are easy-to-clean, cut maintenance costs

Luxaflex Venetian Blinds maintain good air circulation and their hygienic slats and tapes eliminate the risks of infection. That's why they're used extensively in hospitals, canteens, etc.

Luxaflex

REGISTERED TRADE MARK

THE WORLD'S FINEST VENETIAN BLIND

For further information and literature write or phone:

LUXAFLEX LIMITED • 33 SLOANE STREET • LONDON S.W.1 • TELEPHONE: BELGRAVIA 6275

she can't have one without the other

Most people want the comfort of modern amenities—but few like the towers that bring the power to work them. What's the answer? Return to lamplight, peat fires and the washing tub? Bury the power lines and do away with the towers altogether? Attractive idea—just possible too, but at 17 times the cost—with its inevitable effect on your electricity bill. For the foreseeable future, transmission towers must stay. But they cannot be planted just anywhere. An Act of Parliament charges the Central Electricity Generating Board with a double duty: to provide an efficient and economical electricity supply, while preserving visual amenity as far as possible. Power lines are planned with forethought—by men who are as anxious as you are to keep this land green, pleasant . . . and up-to-date.

C.E.G.B

who make and supply electricity to 12 Area Electricity Boards in England and Wales (which re-sell to consumers) and British Railways.

Write for a copy of "Preserving Amenities" to The Central Electricity Generating Board, 79 Winsley Street, London, W.1

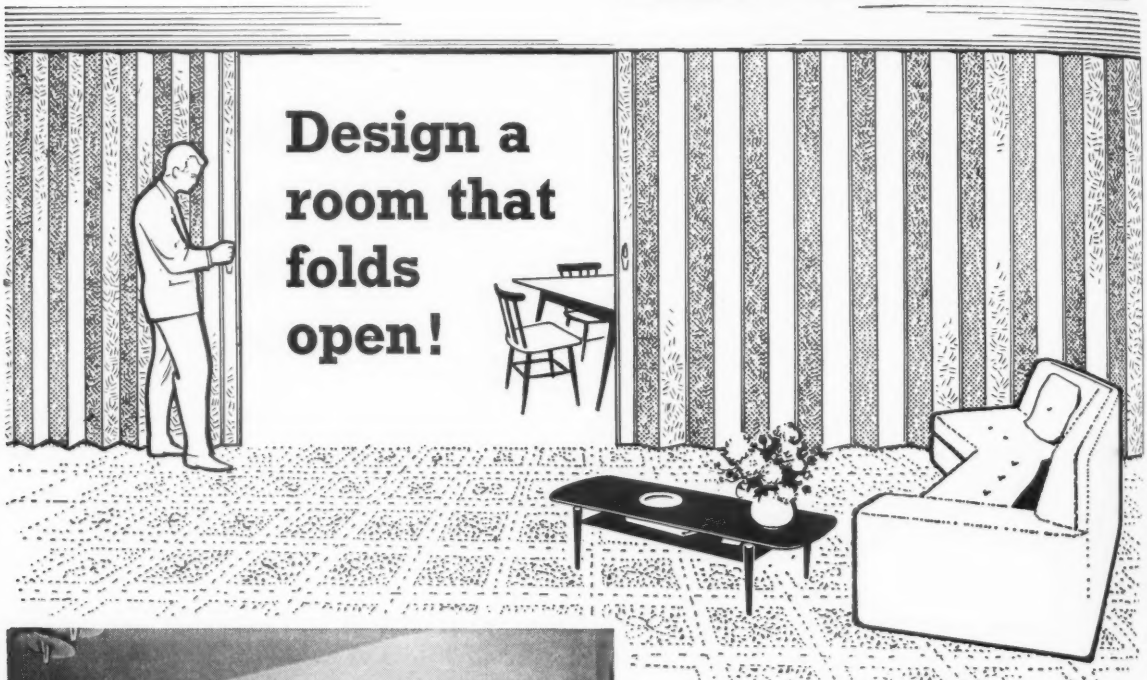
Barclays Bank D.C.O.
Old Broad Street E.C.2

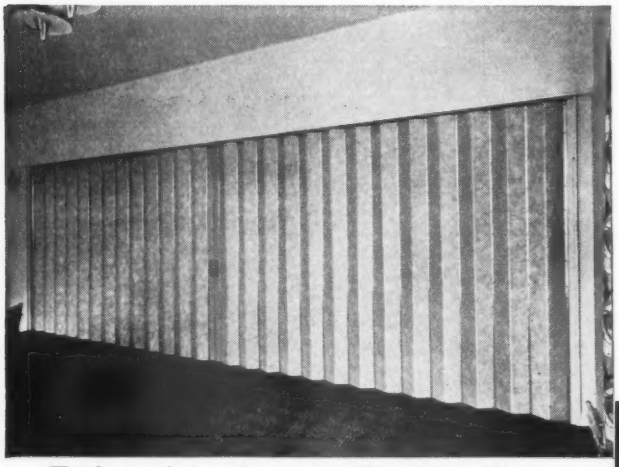
This is the impressive Mezzanine Corridor of Barclays Bank D.C.O.—a fine example of the work of Green & Vardy, carried out under the direction of the architects: Ley, Colbeck & Partners. Dark Nigerian walnut veneers were used for the surrounds and reveals, and avodire for the panelling and doors. The table, specially designed, is veneered in Nigerian walnut.

For prestige work, restoration, joinery, cabinet making, hand carving and intricate woodwork—any job that requires infinite skill and craftsmanship—get in touch with Green & Vardy.

J. L. GREEN & VARDY LTD
CRAFTSMEN IN WOOD
79 Essex Road, Islington, London, N.1.
Telephone: Canonbury 3254

Offices, schools, assembly halls—or a serving hatch—these are just a few of the innumerable applications of SUPERFOLD collapsible partitions. The metal frames combine strength with lightness, operation is smooth and silent and, when bunched, the partitions occupy the minimum of space. The technical superiority of SUPERFOLD, complemented by a range of 120 washable leathercloth finishes, opens up new planning possibilities for architect and builder.





The photograph above shows a pair of Superfold partitions (24′ 8½″ overall width x 8′ 10″ overall height), at a club. In the photograph at the top of the page the partitions are opened to show the dining room.

- ***SUPERFOLD is made in sizes up to 15 ft. x 120 ft.***
- ***Extruded alloy hinge sections connected to frame by special hinging plates; alloy strips fix leathercloth to the frame, thus preventing sagging of the material.***
- ***Remote control by electrical operation where required.***
- ***Leathercloth samples and leaflets available on request under reference RB 384.***

SUPERFOLD

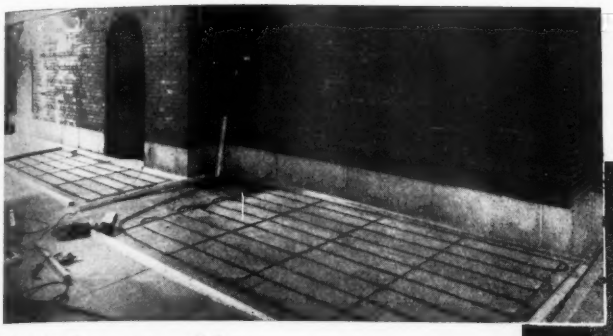
LEATHERCLOTH COVERED COLLAPSIBLE PARTITIONS

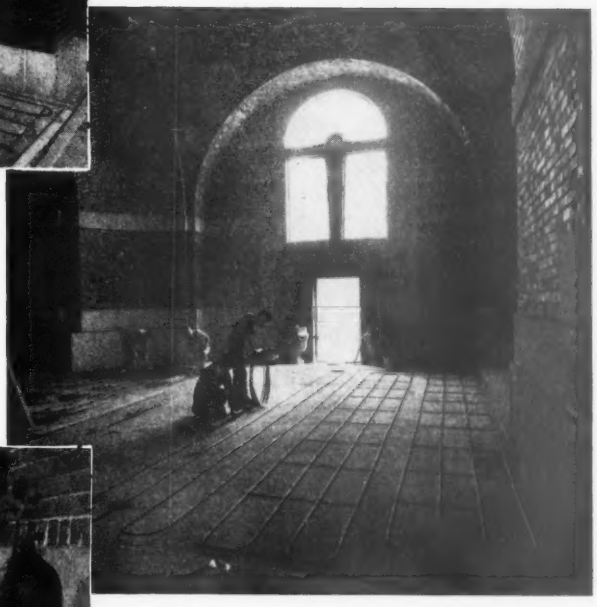
BOLTON GATE COMPANY LIMITED · BOLTON · LANCASHIRE

Branches at London, Glasgow, Birmingham, and towns throughout the country.

(cin) BG384

Radiant Panel Heating in Copper in the LIVERPOOL METROPOLITAN CATHEDRAL





With kind permission of the Cathedral Authorities

Architect:
A. GILBERT SCOTT C.B.E., M.C., F.R.I.B.A.

Main Contractors:
C. J. DOYLE & SONS LTD.

Heating Engineers:
YOUNG, AUSTEN & YOUNG LTD., Liverpool.

About 7 miles of

YORKSHIRE IMPERIAL

KUTERLON

(*long length*)

COPPER TUBES

have been used for the radiant panel heating system in this Cathedral.

YORKSHIRE IMPERIAL METALS LIMITED

HEAD OFFICE: P.O. BOX 166, LEEDS TELEPHONE: LEEDS 7–2222

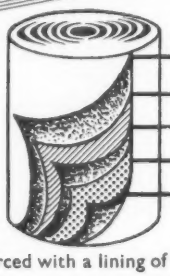
THE BEST OF TWO WORLDS...

BITUMETAL ROOFING

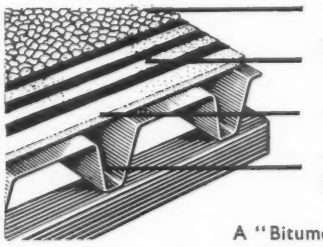
Bulmer & Lumb Limited, Bradford.
Architects: Walker & Collinson, Bradford.

By having "Bitumetal" and "Armourite" specified for their new Coloured Top factory, Bulmer & Lumb ensure complete "top to toe" waterproofing — the first essential in the efficiency of any building.

ARMOURITE *Lead lined* DAMPCOURSE



"Armourite" Dampcourse, reinforced with a lining of sheet lead, gives that "extra" protection required in good class building construction. Available in 4 grades. Standard—8 lbs; 7B—10 lbs; 10C—12½ lbs; Super Heavy—18 lbs. per sq. yd. Lead Content 4 ozs, 7 ozs, 10 ozs. and 16 ozs. per sq. ft.



A "Bitumetal" roof, in addition to being thoroughly waterproofed, is light in weight, quickly erected, draughtproof and dustproof, and has a high degree of thermal insulation, with a choice of specifications to meet any required insulation value.

ASK OUR NEAREST AREA MANAGER FOR FURTHER DETAILS.

BRIGGS

WILLIAM BRIGGS & SONS LIMITED

VAUXHALL GROVE, LONDON, S.W.8 REGD. OFFICE: DUNDEE

AREA OFFICES: ABERDEEN · BELFAST · BRADFORD · BRISTOL · CARDIFF · DUBLIN · EDINBURGH GLASGOW · LEICESTER · LIVERPOOL · NEWCASTLE · NORWICH

Send for Bulletins No. 18 and 7, with samples.

ADAMITE

make

VYNOLEUM

the flooring with the two best sides

and

ALTRO Floorings

Safety and Heavy Duty

Vynoleum is a thick resilient pure P.V.C. floor covering incorporating a soft, warm, felt underlay for floors and stairs. Available in 30 patterns this attractive flooring can be laid on wood or concrete, or any sound dry sub floor. It is sound deadening with high thermal properties and resistant to heavy abrasions or impact. Vynoleum is increasingly specified for use in Churches, Nursery Schools, Hospitals, Welfare Homes, Flats, Technical Schools and Research Laboratories.
Supplied in rolls 72" wide and laid for approximately 23/- per sq. yard.

ALTRO Heavy Duty and Safety Floorings. These are of pure P.V.C. on hessian base: of exceptional toughness and with a tested wear resistance greater than that of pressed granite paving flags, non-slip, chemical resistant. Installations include Hospitals, Laboratories, Breweries, Factories, Banks and Golf Clubs.

Heavy Duty—in rolls 72" wide and laid for approximately 32/- per sq. yard.

Safety—as above and laid from approximately 40/- per sq. yard.

THE ADAMITE COMPANY LIMITED

HEAD OFFICE
94-98 PETTY FRANCE · LONDON S.W.1 · Telephone ABBey 5911

NEW LAMINATES FROM PERSTORP

Meet the sensational new surfaces from Sweden—Perstorp MINOR and Perstorp RELIEF—high quality laminates specially designed for vertical surfacing.

PERSTORP MINOR—Light and economical, good to look at and easy to fix, it's perfect for vertical surfaces of kitchens, bathrooms and furniture. Available in a range of 25 colours, patterns and woodgrains. MINOR can be curved under certain conditions and subject to top quality core and first-class fabrication can also be used horizontally.

PERSTORP RELIEF—The first laminate with a surface texture, it has the same easy-to-clean hard-wearing qualities as the famous Perstorp STANDARD. For vertical application RELIEF makes possible a greater decorative effect and gives an impression of softness and warmth. In six magnificent pastel shades, Perstorp RELIEF brings a new conception of decorative elegance.

Popular Swedish PERSTORP STANDARD—the original plastic laminate—continues unchanged and is particularly suitable for horizontal applications. 15 exciting new colours, patterns and woodgrains have been introduced into the range making a total of 69.

Swedish PERSTORP

For further details contact your nearest Perstorp distributor

Perstorp Distributors:

London & Home Counties
C. F. Anderson & Son Ltd., Harris Wharf, Graham Street, London, N.1.
George E. Gray (Plastics) Ltd., Joinant House, Eastern Avenue, Ilford, Essex.
Heaton Tabb & Co. Ltd., Cobbold Road, N.W.10.

West Country & South Wales
Channel Plastics Ltd., Flowers Hill, Brislington, Bristol 4.

Midlands Area & East Anglia
Rudders & Paynes Ltd., Chester Street, Aston, Birmingham, 6.

N. E. England
A. J. Wares Ltd., King Street, South Shields.

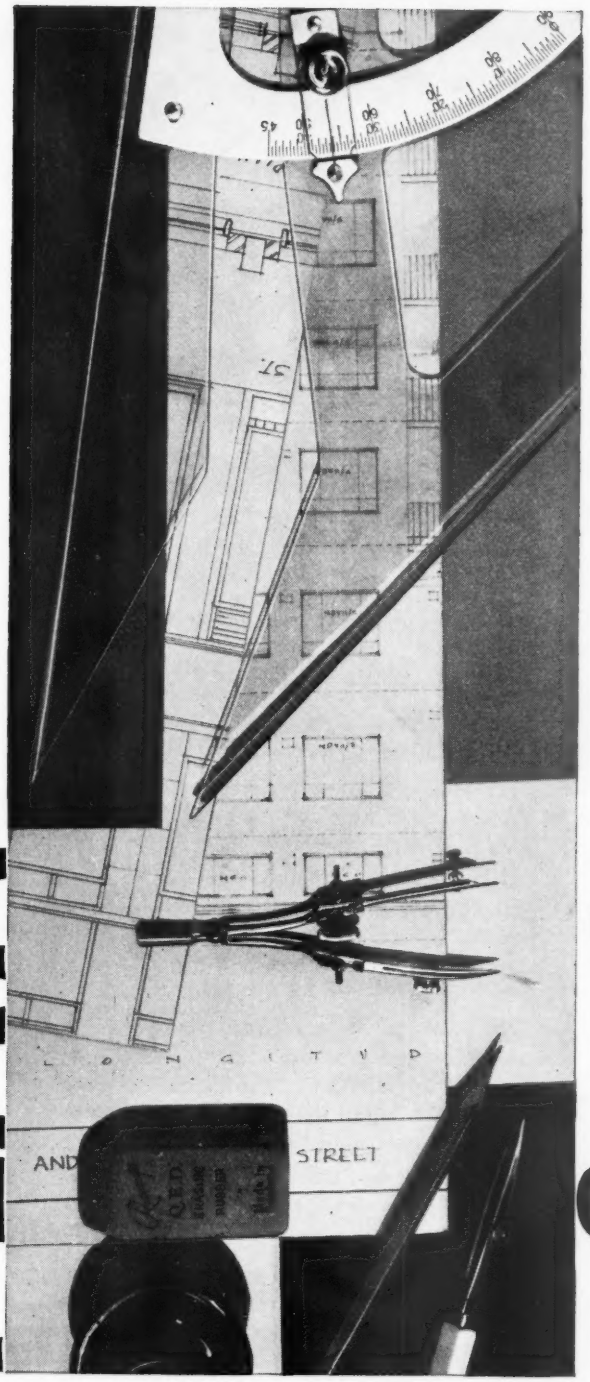
N.W. England & North Wales
Heaton Tabb & Co. Ltd., 55 Bold Street, Liverpool, 1.

Scotland
G. & R. (Boards & Plastics) Ltd., Rivaldsgreen Works, Linlithgow, West Lothian.

N. Ireland
John McNeill Ltd., 109 Corporation Street, Belfast.

Make it Perstorp Perfect when you come to interior surfacing

PLAN



WITH Sundeala BUILDING BOARD

SOVEREIGN · HARDBOARD

PLAN . . . with Sundeala. Boards which meet every architectural and building requirement. Made from wood but better than wood . . . available in Exterior and Interior grade, in Medium Hardboard also Standard Perforated and Reeded Sovereign Hardboard. *For samples and further details write to:*

SUNDEALA BOARD CO. LIMITED

Head Office: SUNDEALA BOARD CO. LIMITED
Columbia House, Aldwych, London, W.C.2. *Tel.* CHAncery 8159
Metal Fixing Dept.: Tel. Sunbury-on-Thames 341
Newcastle: Northumbria House, Portland Terrace, Newcastle upon Tyne 2
Tel. Newcastle 81-4323
Plymouth: Tel. 68251
SCOTLAND: S. H. Nunn, Eglinton House, Eglinton Estate, Kilwinning, Ayrshire. *Tel.* Kilwinning 284

If you know what's best for underlining asphalte you'll specify **Black Sheathing Felt**

TALK to any of the country's most able and experienced asphalters about the ideal underlining for hot asphalte. They know that it is Black Sheathing Felt—and they'll give you reasons as well. *Good* reasons like B.S.F. being the perfect keying medium, able to resist cracking and creeping, and giving complete isolation from the substructure. Experience proves, too, that B.S.F. handles pleasantly, lays easily, and doesn't wrinkle, shrink or absorb moisture. After that . . . it's up to you to

specify asphalte laid on

Black Sheathing Felt

for your job

MANUFACTURED BY
John Rogers Ltd., Belfast
D. Anderson & Son Ltd., Manchester
Engert & Rolfe Ltd., London
Robt. McCalmont & Sons Ltd., Belfast
F. McNeill & Co. Ltd., London
Permanite Ltd., London
John Erskine Ltd., Belfast

BSF 15

See for yourself...

New LUXOL Dense White

GIVES PURE WHITENESS..

GIVES REAL COVER POWER.

AND HAS PROVEN QUALITY

There can be no doubt from its successful reception by painters and decorators everywhere that Luxol Dense White has filled a real need for a pure White Enamel Finish.

The extra density of the paint and its sheer strength of build give an exceptional obliterating power . . . and the men who know paints and know their trade have been quick to approve and apply its 'no show through' opacity. New Luxol Dense white is easy to apply and offers decorators everywhere an immaculate white gloss that puts all ordinary white paints well in the shade. In fact for a lasting brilliance of whiteness new Luxol Dense White is unsurpassed.

White has never covered like this before.

Decorators everywhere approve the new white out of the ordinary

NEW LUXOL Dense White

BRITISH PAINTS LIMITED *Decorative Division*

Portland Road, Newcastle upon Tyne, 2
Northumberland House, 303-306 High Holborn, London, W.C.1
Mersey Paint Works, Wapping, Liverpool

Aberdeen, Belfast, Birmingham, Bristol, Cardiff, Glasgow, Edinburgh, Manchester, Middlesbrough, Norwich, Nottingham, Sheffield, Southampton, and all principal towns.

D124

THE NEW DAILY MIRROR BUILDING,
Holborn Circus, E.C.1.
Joint Architects and Engineers:
Sir Owen Williams and Partners,
Messrs. Anderson, Forster and Wilcox
Main building contractors:
W. & C. French, Ltd.

new buildings – new needs

An installation of Crittall galvanized steel curtain walling, with vitreous enamelled infil panels in red, grey and yellow.
The area of curtain walling is 70,750 sq. ft. using 285 tons of steel, and accommodating 35,000 sq. ft. of glass, and 20,000 sq. ft. of panelling weighing 44 tons.

and
WINDOWS
by
CRITTALL

Write for leaflet 241B
THE CRITTALL MFG. CO. LTD.
BRAINTREE · ESSEX
Branches throughout the country

TBW132

"Your call to CMC, Sir!"

'He's a pleasure to work for now, and I'm sure it's because he's dealing with Blue Circle. Take this call to their technical department for instance. He'd never been able to get such helpful service so fast from any other firm. He says there isn't much they don't know about cement up at Blue Circle. I'm no judge of that but I'm glad they know how to keep all their customers happy!'

The Blue Circle group of companies spends over £350,000 annually on research alone. Theirs is one of the most advanced and best equipped laboratories in the world. They have geologists, physicists, engineers and chemists investigating raw materials, plant operation, cements of all possible kinds and other products based on cement. The effect of all this is that there aren't many cement problems for which they can't give an answer.

See CMC about Cement!

Make use of our technical service. For all information please write to:

THE CEMENT MARKETING COMPANY LIMITED, PORTLAND HOUSE, TOTHILL STREET, LONDON, SW1 · Telephone: TATe Gallery 3456
G. & T. EARLE LIMITED, HULL · Telephone: Hull 26121
Selling Organisations of The Associated Portland Cement Manufacturers Ltd.

ELCO PLASTICS LTD

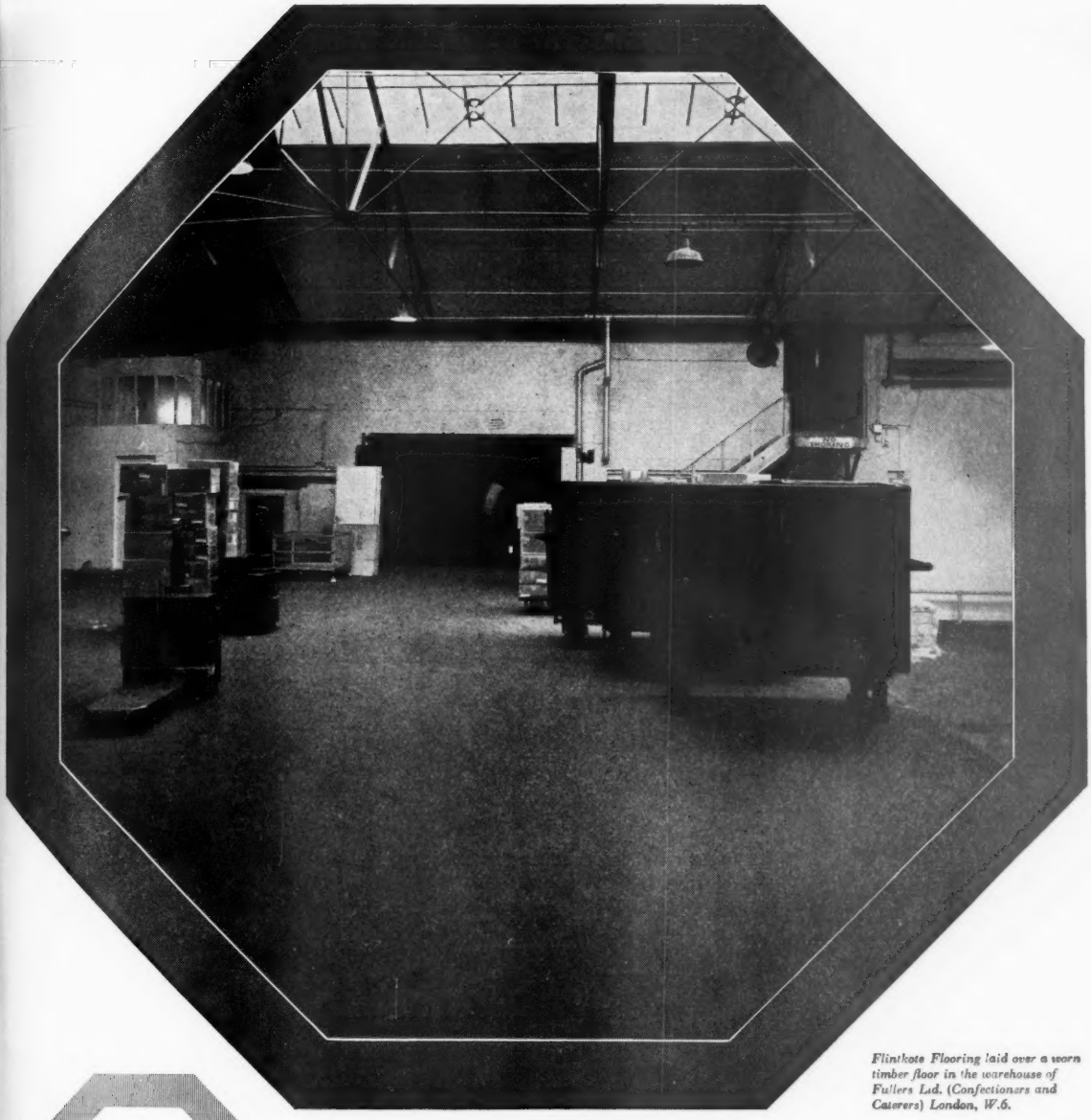
for illuminated ceilings

'Elcoplas' louvres installed at BERKERTEX

Berkertex London Fashion Centre, 309, Oxford Street, London, W.1.
Architect:—
Office: W. H. Marmorek, Dr. Eng., FRIBA.
Shop: The late Mr. Bronek Katz, MBE, Dipl. Ing. Arch. FSIA, of Bronek Katz and R. Vaughan.

ELCO PLASTICS LIMITED

Desborough Park Road, High Wycombe, Bucks. *Tele: 4111*



Flintkote Flooring laid over a worn timber floor in the warehouse of Fullers Ltd. (Confectioners and Caterers) London, W.6.

FLINTKOTE

Industrial flooring virtually eliminates maintenance. Simple to apply and cold laid. It is particularly suitable for heavy traffic conditions.

World-wide Availability and Technical Advisory Service

Full information on request

The Flintkote Company Limited

Adam House, One Fitzroy Square, London, W.1.

Telephone: Euston 7224 *Telegrams: Flintkote, Wesdo, London* *Cables: Flintkote, London*

F.15

you have never seen OFFICE LIGHTING like this before . . .

Pleasant working environments with accompanying efficiency call for reasonably high levels of illumination—but such high level illumination must be free from discomfort glare.
Merely to increase the light source brightness results in excessive glare from the lighting fitting. The answer is low brightness fittings of high luminous output—"Comfort in Lighting" fittings developed by G.E.C.
The G.E.C. range of "Comfort in Lighting" fittings is the only one which meets the recommendations for every type of installation of the new Code for Good Interior Lighting issued by The Illuminating Engineering Society.
You could see lighting like this every day in *your* office, by installing G.E.C. "Comfort in Lighting". Write for the 40 page illustrated brochure F4695 or better still, ask us to send a Lighting Engineer. Our Lighting Advisory Service is entirely free and without obligation.

comfort in lighting

means high level illumination without discomfort glare.

G.E.C.
LIGHTING & HEATING GROUP

LIGHTING AND HEATING GROUP · THE GENERAL ELECTRIC CO. LTD. MAGNET HOUSE · KINGSWAY · LONDON · W.C.2

In the know about steel and design for
reinforced and prestressed concrete construction.
Supported by many other companies in the G.K.N. group
(specialists in all the phases of steel—making,
rolling, drawing and finishing) we are, you might say, the force
in reinforcement. With so many resources
to call on, no wonder we're 'in the gknow'.
And no wonder so many people are saying:

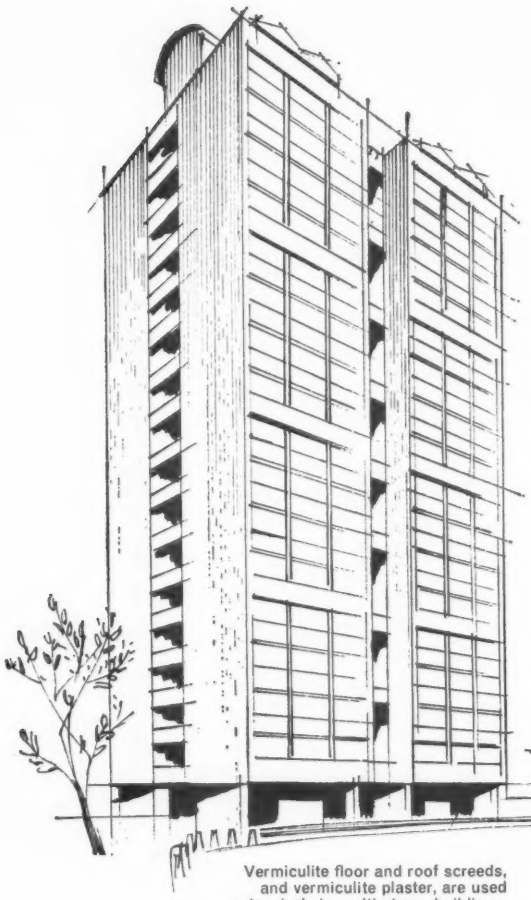
If you want to put steel into concrete get in touch with

G.K.N. Reinforcements Ltd.

22 Kingsway, London W.C.2 (Chancery 1616)

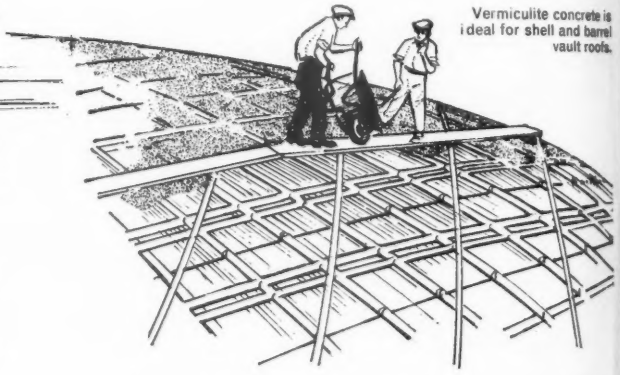
SMETHWICK *Smethwick 2111* MANCHESTER *Ardwick 1691*
LEEDS *Leeds 27311* CARDIFF *Cardiff 35220* GLASGOW *Bell 2444* BRISTOL *Bristol 21555*
MIDDLESBROUGH *Middlesbrough 3843* SOUTHAMPTON *Southampton 22167*
LEICESTER *Leicester 25114*

A MEMBER OF THE GKN GROUP OF COMPANIES



Vermiculite floor and roof screeds, and vermiculite plaster, are used extensively in multi-storey buildings.

better buildings deserve better INSULATION



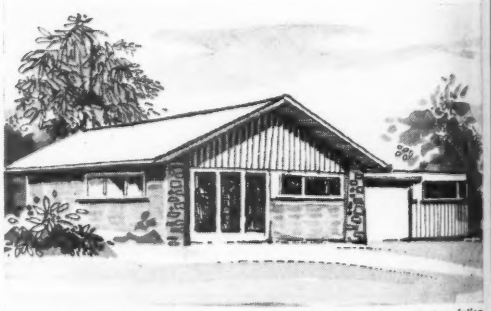
Vermiculite concrete is ideal for shell and barrel vault roofs.

Vermiculite Concrete
'k' value=0.65—1.3 BThU
Density 22—45 lb/cu. ft.

Vermiculite Plaster
'k' value=0.90—1.3 BThU
Density 30—45 lb/cu. ft.

Loosefill Vermiculite
'k' value=0.43 BThU
Density 4—8 lb/cu. ft.

A new and comprehensive handbook is available on request from Mandoval Limited, Barrington House, 59 Gresham Street, London, E.C.2. Tel: Metropolitan 9101, who, under the management of the Rio Tinto Mining Group, are world distributors of vermiculite ore.



Loosefill vermiculite is recommended for domestic insulation.

LIGHT—INSULATING—FIRE RESISTANT

VERMICULITE

FOR BETTER ROOF SCREEDS, FLOOR SCREEDS, PLASTERS AND LOOSEFILL

DOWN
DOWN
DOWN
DOWN
DOWN
DOWN
DOWN
DOWN
DOWN
DOWN
DOWN
DOWN
DOWN
DOWN

efficient
automatic
lift
systems
by
J. & E. Hall

J & E Hall Ltd Dartford Kent London office : 60 Rochester Row SW1 Victoria 0354 A member of the Hall-Thermotank Group

hutchison

At the Old Bailey is found the fine craftsmanship of

MAPLE MARTYN

It is not only famous places which enjoy the benefit of Maple-Martyn craftsmanship. The comprehensive service offered to Architects by the MAPLE-MARTYN ORGANISATION embraces every aspect of constructional, decorative and furnishing contract work. If you are concerned with work of the highest class, please enquire further.

CONTRACT DEPARTMENT

MAPLE & CO. LTD. TOTTENHAM COURT RD. LONDON, W.1

IN ASSOCIATION WITH ITS SUBSIDIARY

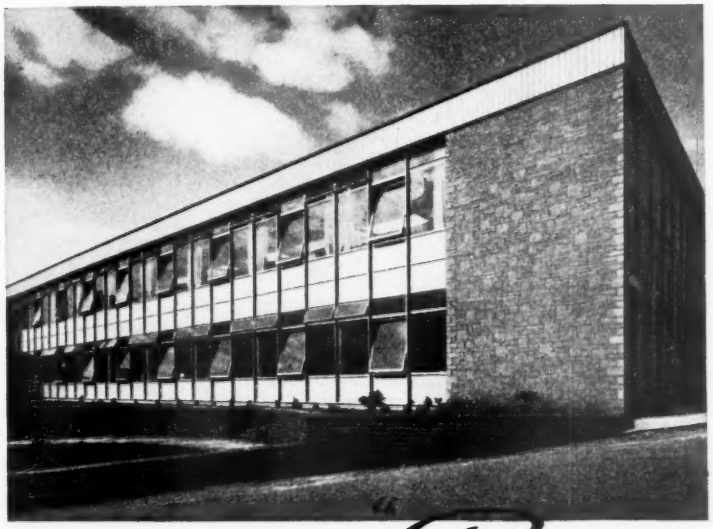
H. H. MARTYN & COMPANY LIMITED, CHELTENHAM

The service of the MAPLE-MARTYN ORGANISATION is also available through the contract department of ROBSON'S, Newcastle-upon-Tyne and RAY & MILES, Liverpool. Representatives are also in attendance at MARK ROWE LTD., Exeter, SHEPHERD & HEDGER, Southampton and Salisbury, and at MAPLE & CO. LTD., Bournemouth, Bristol and Birmingham.

THE HEYWOOD-HELLIWELL BROCHURE: "ALUMINIUM WINDOWS" - BULLETIN 1 (NOVEMBER 1959) IS NOW OBSOLETE, AND WE ARE PLEASED TO INTRODUCE:

NEW Specification ALUMINIUM WINDOWS

FOR THE ARCHITECTURE OF TODAY



HEYWOOD-HELLIWELL LTD.
NEW OFFICE BUILDING · BAYHALL WORKS
ARCHITECT · NOEL HEPPENSTALL · HUDDERSFIELD

"Continental" SERIES

SUPERB FINISH AND APPEARANCE, WITH HIGHEST QUALITY CONSTRUCTION AND FITTINGS FEATURED THROUGHOUT ACHIEVES OUR AIM: TO PROVIDE THE FINEST IN ALUMINIUM WINDOWS.

WRITE FOR BROCHURE H/40 WHICH FULLY DESCRIBES THE NEW SERIES "A" & "B" (SPECIAL), A VARIATION OF WHICH GIVES A PRACTICAL CHOICE OF DESIGN WITH FLEXIBILITY OF SIZE AND VENTILATOR RANGE.

Heywood — Helliwell

HEYWOOD-HELLIWELL LTD., BAYHALL WORKS, HUDDERSFIELD **Tel.: Huddersfield 6594 (5 lines)**

For top quality and 10% saving

MAC FISHERIES *specify Merthyrware*

Mac Fisheries Ltd. have found that Merthyrware Tiles provide the right kind of flooring to stand up to heavy traffic. The shale from which Merthyrware Tiles are made is the finest in the country and because our factory is situated on the site of this raw material, we can produce a tile of superior quality at a more economical price.

MERTHYRWARE

Modern Ceramic Floor Tiles

These hardwearing, real ceramic tiles are unbeatable for their long-lasting qualities and consistent size and colour. Merthyrware Tiles are produced in one of the most modern, best-equipped factories in the country. They are universally accepted, and are particularly suitable for use in shops, offices, factories, schools and municipal buildings everywhere.

SPECIFY MERTHYRWARE FOR:—

SUPERIOR STRENGTH—up to **10 tons per sq. inch.**
CLEAR, FAULTLESS COLOURS—Red and Mingles.
STANDARD SHAPE AND CONSISTENT SIZE.
RESISTANCE to heat, moisture absorption, acids, grease and fire.
REAL ECONOMY Merthyrware cost less than any comparable tiles.
Outstanding for accurate size and consistant colour.
CERAMIC CILL TILES—Fit ALL cills.

MERTHYRWARE TILES *never wear out!*

SWIFT DELIVERY—24 HOURS SERVICE—WRITE OR 'PHONE

MERTHYRWARE LTD. CARKER'S LANE, LONDON, N.W.5. TELEPHONE: GULLIVER 8761 (10 LINES)

FACTORY: HEOLGERRIG, MERTHYR TYDFIL, GLAMORGAN, TELEPHONE: MERTHYR TYDFIL 2793

The Imdugud Relief, outstanding among discoveries made at Al-'Ubaid, of art works incorporating copper and bitumen . . . and dated 3100 B.C. Reproduced by courtesy of the British Museum.

What will last . . . 5,000 years?

Copper and native bitumen are known to have been in use as long ago as 3100 B.C. *because* the weatherproof and corrosion-resistant properties of these materials have helped to preserve for 20th Century eyes relics of unbelievably ancient civilisations.

TODAY this same time-tested combination of Copper and native bitumen now derived from the great Trinidad Asphalt 'lake' provides modern building with COPPERTRINDA — the finest hand-made dampcourse in the world.

COPPERTRINDA

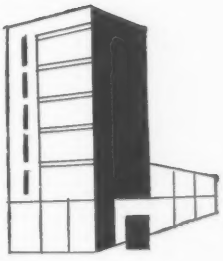
for lasting protection

A sample of COPPERTRINDA will be sent to you immediately upon request to

ENGERT & ROLFE LIMITED

Dept RIBA15, Barchester Street London E14

Tel. EAST 1441



Will Engert & Rolfe arrange to have a sample of COPPERTRINDA sent to

M.....

(Designation).....

of.....

.....

.....

RIBA15

CT.1

The latest developments in Solid Fuel Central Heating

The cheapest system and the most flexible

You know already that solid fuel is the cheapest central heating to run—that's why so many of your clients specify it.

You are probably aware that solid fuel central heating can be most economically adapted to suit any house, any budget. Central heating can be tailor-made to suit every household because solid fuel gives as much or as little heat as is wanted. Where it is wanted. How it is wanted. And when it is wanted. With two radiators or twenty. Here we show four different solid fuel central heating systems.

But do you know about the very latest techniques of designing and installing small-pipe systems? How to use them most economically for the smallest systems? The C.U.C. have several booklets, written by experts, which you would find helpful. Two are FREE, one costs 2/6d. You can get them by posting off the coupon below.

To: COAL UTILISATION COUNCIL (J.R.I.)
3 UPPER BELGRAVE STREET, LONDON, SW1

Please send me:

- ☐ FREE BOOKLET '*Small Central Heating Systems*'
- ☐ FREE BOOKLET '*The Design and Installation of Small-pipe Heating Systems with Automatic Temperature Control*'
- ☐ '*Central Heating for Houses*' for which I enclose a postal order for 2/6

NAME .....

ADDRESS .....

.....

.....

Four Solid Fuel Central Heating Systems

2/3 RADIATORS FROM AN OPEN FIRE

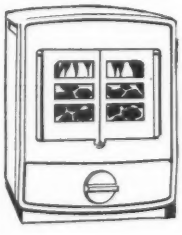
A modern open fire with a high output back-boiler will give lots of hot water, heat a radiator, say, in the living room or hall, another in the bedroom, and a towel rail in the bathroom (with a warm living room thrown in). This is comfort! And very economical.

BACKGROUND CENTRAL HEATING FROM AN INDEPENDENT BOILER

Another way of getting a warm house, with three or four radiators placed just where they are wanted and as much hot water as is needed, is to fit one of the new independent boilers with thermostatic controls.

FULL LUXURY CENTRAL HEATING

For full central heating with the luxury of radiators in every room, solid fuel is the cheapest of all systems to run. The new central heating boilers are very streamlined and labour-saving and can heat anything from six to twenty radiators and provide constant hot water too.



ROOM HEATERS CAN ALSO HEAT RADIATORS

When there is an existing hot water system and a large living room to heat, it is a good plan to install a modern room heater with back boiler. This will give efficient and very economical heating of the room in which it is installed, plus heating for, say, two or three radiators in cold spots in the house, independently of the hot water system.

The Journal of the Royal Institute of British Architects

66 Portland Place London W1 Telephone Langham 5533

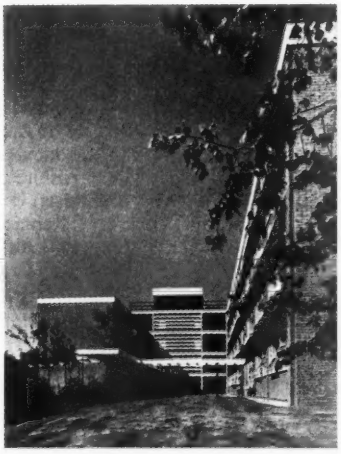
August 1961
Third Series Volume 68 No. 10
Price 3*s* 6*d*

Principal Contents

Page 374 Council Election Results
376 Sixth Congress of the IUA
395 Correspondence
396 Practice Notes
397 Technical Column
398 IUA Congress – Closing Plenary Session
404 Presentation of the Royal Gold Medal and the RIBA London Architecture Bronze Medal
410 Book Reviews

Diary of Events

Until 19 August	RIBA Library closed.
1 to 3 September inclusive	BASA Conference at the York Institute of Advanced Architectural Studies.



Cover picture

Parkgate, Somerhill Road, Hove
Architect: Eric Lyons, OBE *[F].*
This scheme for 47 *flats and* 18 *garages received one of the* MOH *and* LG *Awards for Good Housing Design*

RIBA Council 1961-62

Election Results

At the General Meeting on 27 June 1961, the Scrutineers appointed to count the votes for the election of the Council for the Session 1961–62, made the following report to the Chairman, Professor Sir William Holford, ARA, MA, PPTPI, FILA (President): 4,509 Voting Papers were received of which 52 were invalid. In addition 207 envelopes were received which were invalid (162 unsigned, 45 unstamped).

The result of the election is as follows:

President

Professor Sir William Holford — unopposed

Past Presidents

Sir Howard Robertson, Sir Basil Spence — unopposed

Licentiate Member of Council

John Leslie Jones (Cheltenham) — unopposed

Fellow Members of Council

1. George Grenfell Baines (Preston) — 2,075 votes
2. Albert William Cleeve Barr — 1,923 ,,
3. John Lewis Womersley (Sheffield) — 1,642 ,,

Associate Members of Council

1. Percy Edwin Alan Johnson-Marshall (Edinburgh) — 2,611 votes
2. William Alexander Allen (Garston) — 2,406 ,,
3. William Gough Howell — 1,623 ,,
4. Thurston Monier Williams — 1,373 ,,

Ordinary Members of Council

1. Clifford Ewart Culpin [*F*] — 1,455 votes
2. John Charles Eastwick-Field [*F*] — 1,366 ,,
3. Kenneth John Campbell [*A*] — 1,331 ,,
4. Leonard Grange Vincent [*A*] (Stevenage) — 1,208 ,,

Candidates not Elected

1. David Barclay Waterhouse [*A*] — 1,196 votes
2. Jeremy James Mackay-Lewis [*A*] — 1,183 ,,
3. Leslie Hugh Wilson [*F*] (Dullatur, by Glasgow) — 1,161 ,,
4. Peter Browning Dunham [*F*] (Luton) — 1,146 ,,
5. Leonard Cecil Howitt [*F*] (Manchester) — 1,140 ,,
6. Bryan Percy Westwood [*F*] — 1,138 ,,
7. Guy Barrie Oddie [*A*] (Epsom) — 1,067 ,,
8. Roger Talbot Walters [*A*] (Chessington) — 1,042 ,,
9. Joseph Roy Parker [*A*] (Birkenhead) — 1,031 ,,
10. George Haslehurst Lawrence [*A*] (Edinburgh) — 1,004 ,,
11. Professor Jack Hollingworth Napper [*F*] (Newcastle upon Tyne) — 998 ,,
12. Harold Conolly [*F*] (Chelmsford) — 900 ,,
13. George Roland Adamson [*A*] — 873 ,,
14. Basil Robert Ward [*F*] — 853 ,,
15. John Clifford Barker [*F*] (Bedford) — 834 ,,
16. Eduardo Gordon Dodds [*A*] — 660 votes
17. Norman Harold Fowler [*F*] (Leeds) — 599 ,,
18. Charles Edward Pearson [*F*] (Lancaster) — 579 ,,
19. Herbert Kellett Ablett [*F*] (Hemel Hempstead) — 564 ,,
20. Ernest Frederick Tew [*F*] (Bath) — 463 ,,
21. David Stokes [*F*] — 404 ,,
22. Edwin Williams [*F*] (Teddington) — 368 ,,
23. Frederick Thomas Orman [*F*] — 328 ,,

Representatives of Allied Societies in the United Kingdom or the Republic of Ireland

(1) *Six Representatives from the Northern Province of England*

James C. Spooner [*A*] (Northern Architectural Association)
Haydn William Smith [*F*] (Manchester Society of Architects)
Dr Ronald Bradbury [*F*] (Liverpool Architectural Society)
Ernest Firth [*F*] (York and East Yorkshire Architectural Society)
Geoffrey Arthur Rowe [*A*] (West Yorkshire Society of Architects)
Professor John Needham [*F*] (Sheffield, South Yorkshire and District Society of Architects and Surveyors)

(2) *Five Representatives from the Midland Province of England*

Alfred Herbert Gardner [*F*] (Birmingham and Five Counties Architectural Association)
Shirley Simpson Moore [*F*] (Leicestershire and Rutland Society of Architects)
John Thomas Burdett Neville [*L*] (Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects)
Richard Rennie Alexander [*F*] (Nottingham, Derby and Lincoln Society of Architects)
Edward Ray Crane [*F*] (East Anglian Society of Architects)

(3) *Six Representatives from the Southern Province of England*

Harold Cameron Beaumont [*A*] (Devon and Cornwall Society of Architects)
Major Arthur Douglas Kirby [*F*] (Wessex Federal Society of Architects)
Harry Morrice Hutt [*A*] (Berks, Bucks and Oxon Architectural Association)
Peter Ross Sawyer [*F*] (Hampshire and Isle of Wight Architectural Association)
Frederick George Frizzell [*A*] (Essex, Cambridge and Hertfordshire Society of Architects)
John Edward Annesley Brownrigg [*A*] (South-Eastern Society of Architects)

(4) *Four Representatives of Allied Societies in Scotland nominated by the Royal Incorporation of Architects in Scotland*
Thomas Smith Cordiner [F] (Glasgow)
John Holt [F] (Edinburgh)
James Allan Hugh Mottram [A] (Edinburgh)
David Reekie Smith [A] (Glasgow)

(5) *One Representative of Allied Societies in Wales nominated by the South Wales Institute of Architects*
Howard Williams [F]

(6) *Two Representatives of Allied Societies in Ireland*
Alan Hodgson Hope [A] (Royal Institute of the Architects of Ireland)
Charles Munro [A] (Royal Society of Ulster Architects)

Representatives of Societies in Alliance with the Royal Institute Overseas
Maurice Payette [F] (The Royal Architectural Institute of Canada)
Sir Basil Spence [F] (Representative in the United Kingdom)
Professor Henry Ingham Ashworth [F] (The Royal Australian Institute of Architects)
Kenneth Mervyn Baskerville Cross [F] (Representative in the United Kingdom)
Arthur Louis Salmond [A] (The New Zealand Institute of Architects)
Reginald Harold Uren [F] (Representative in the United Kingdom)
Homi Naushirwan Dallas [F] (The Indian Institute of Architects)
Stuart Bentley [F] (Representative in the United Kingdom)

Representative of the Architectural Association (London)
John Michael Austin-Smith [F]
Representative of the Association of Building Technicians
Edward Ernest Hollamby [A]
Chairman of the Board of Architectural Education
Edward David Mills [F]
Chairman of the RIBA Registration Committee
Denis Clarke Hall [F]
Chairman of the RIBA Allied Societies' Conference
Herbert Jackson [F] (Birmingham)

Election of two Honorary Auditors
Nelson Foley [A]
Michael Ryan [A]

Scrutineers

ERIC H. FIRMIN, Chairman
JOHN J. ADAMS
F. STEVEN ALEXANDER
ALFRED BALL
LAURENCE BUTTERFIELD
F. PAUL DAVIES
E. A. DULEY
D. MURRAY EVANS
ALEXANDER FLINDER
NELSON FOLEY
G. R. GLENNY
RONALD HARDY
DAVID HUBERT
ERIC HUGHES
JAMES C. KENNEDY
FRANCIS KERR
ALAN E. MOODY
RAYMOND O. MOSS
ARTHUR J. NORCLIFFE
N. C. NULLIS
D. S. PEARSE
GORDON PEARSON
NORMAN RIX
MAURICE H. RUSSELL
E. TOM SARGENT
DEREK J. SHARP
THOMAS SIBTHORP
RUSSELL G. D. VERNON
J. A. WHITTAKER

Council Business

The Council met on 27 June, with the President, Sir William Holford, in the Chair.

Points from the Secretary's Report

Informal Conference on Educational Problems of Developing Countries. The Secretary outlined the conference at which some 15 heads of schools and other educationalists from British West Indies, East Africa, Ghana, Hong Kong, India, Malaya, Nigeria, Pakistan, Singapore, the Sudan, and Uganda, will be joining six RIBA representatives for an informal meeting at Portland Place on 16 and 17 August.

Broadly, the following issues are to be discussed:

(*a*) The possible seconding in a more systematic way of lecturers in architecture from the UK and other Commonwealth countries and/or the exchange of lecturers.

(*b*) The effects, both short-term and long-term, in the developing countries, of the RIBA's decision to raise the minimum entry level to two 'A' levels in GCE.

(*c*) The possibility of interesting the new Department of Technical Co-operation (Secretary, Mr Dennis Vosper, MP) in providing funds for formal architectural training in certain countries.

(*d*) A possible increase in scholarships financed from the UK to enable students from overseas to study architecture in Britain.

(*e*) The level of architect and/or 'sub-professional', and therefore the types of training, that each country feels to be needed.

The RIBA Kalendar: Local Distribution List. The Finance and House Committee (with the advice of the Public Relations Committee) have come to the conclusion that the local distribution list in the Kalendar is not of much practical use, and does not justify the expense entailed. All the evidence suggests that a complete record of private practices would be of much more value. The RIBA Records Department will therefore push on with the completion of a record of partnerships in private practice, listed according to geographic area. When sufficient experience has been obtained of the response, the accuracy, and frequency of change, the possible advantages would be considered of publishing a list of private practices. The list would be for sale where appropriate.

Meanwhile the Committee recommend that the local distribution list be discontinued.

RIBA Architecture Bronze Medal. The Jury entrusted with the award for the RIBA Architecture Bronze Medal in the area of the Essex, Cambridge and Hertfordshire SA for 1958–60, have made it in favour of the St Albans College of Further Education. Architects: The County Architect's Department, Hertfordshire County Council, Mr G. C. Fardell [A], County Architect. Contractors: Messrs Sindall, Ltd, Cambridge.

• • •

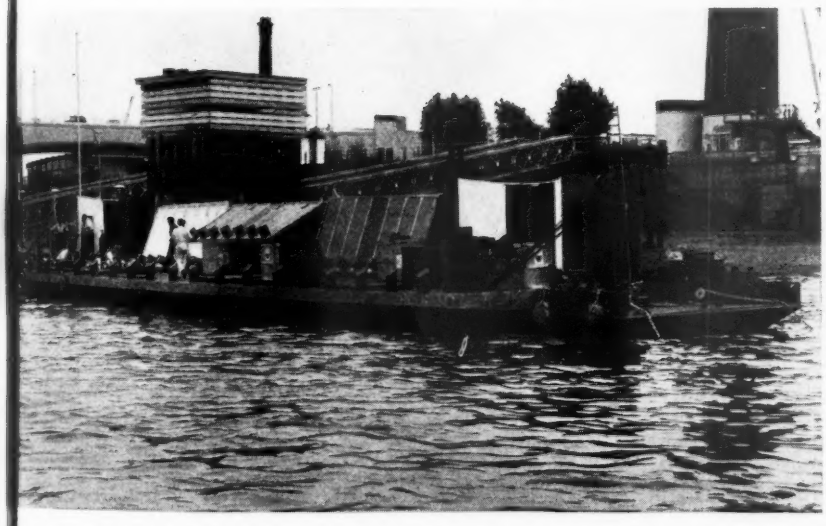
RIBA Library Group

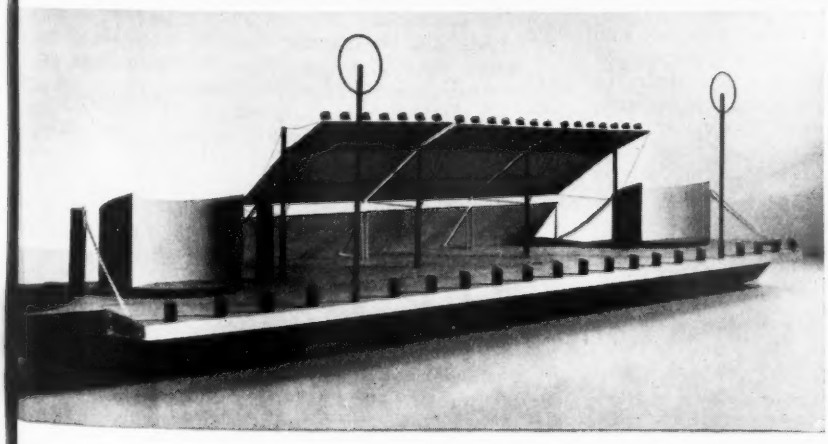
At the AGM of the Library Group held on 19 June, Mr S. Rowland Pierce, FSA [F], was elected Chairman in succession to Mr Edward Carter [A], and Mr Kenneth S. Mills [A] and Mr W. H. Allen [A] were re-elected Hon. Secretary and Hon. Treasurer, respectively.

Congress Week

The visit of the Duke of Edinburgh to the IUA Congress gave great pleasure.
In the photograph above His Royal Highness is chatting to a group which includes Professor Matthew, M. Vago, Snr Corona Martin, Professor Hryniewiecki and Mr Austin-Smith.
On the left: Prince Philip is being escorted round the Congress exhibition by Sir William Holford and Professor Matthew.
In addition to the interest he showed in the work of the Congress, Prince Philip met and talked to many of the volunteer helpers and members of the RIBA staff on duty in the HQ building.
Both the weather and the organisation of the Congress delighted our visitors, and this unique opportunity for British architects to mix with colleagues from all over the world has been a most stimulating experience. It is hoped to give some impressions of this historic week in the September JOURNAL.

Photographed at the Garden Party held for the IUA Congress members by the Cement and Concrete Association at Wexham Springs: *Left:* Mr and Mrs Gontran Goulden; *Right:* Professor Candela with Mr Philip Gooding of the Cement and Concrete Association.





Moored off the South Bank pier on the first day of the IUA Congress was the barge specially designed for the American Wind Symphony Orchestra by Louis Kahn, FAIA, who is to give the 1962 RIBA Annual Discourse.
The barge is 118 ft long and was built at Dartford.
The first of the eleven Concerts given by the orchestra at different places along the Thames under its founder and conductor, Robert A. Boudreau, was off the Festival Pleasure Gardens and the acoustics were admirable.
Future plans include concerts on the Nile and the Niger.
Top picture: the barge being brought to readiness; *below:* a model.

UIA LONDRES 1961

Sixth Congress of the International Union of Architects

Mr Antony Armstrong-Jones opening the Congress in the Royal Festival Hall

Inauguration of the international exhibitions, by the Chairman of the LCC

The exhibitions were formally opened at 11.30 am on Monday 3 July by Mr Harold Shearman, MA, JP, who was introduced by Sir William Holford, President of the IUA Congress. Sir William referred to the support the LCC had always given to any architectural show in London, and recalled that in 1951, at the time of the Festival of Britain, the Architect to the LCC was Prof. Robert Matthew, who ten years later was to be the new President of the IUA.

Mr Shearman described the exhibitions as an outstanding example of international co-operation in constructive work, with 56 nations represented and some 2,000 architects from all over the world taking part. He thought the buildings 'delightful and intriguing' and was sure that the Congress would be of great value in finding acceptable solutions to the problems architects were faced with all over the world.

Snr Hector Mardones Restat (Chile), the President of the IUA, thanked the Chairman of the LCC for opening the exhibitions, and paid tribute to the help received from the LCC.

Opening Plenary Session

The Opening Plenary Session of the Congress was held at the Royal Festival Hall on 3 July.

The President of the Congress, Professor Sir William Holford, PRIBA, announced that a telegram had been sent from the Congress to Her Majesty the Queen. The following telegram had been received in reply: 'Please convey to the Sixth Congress of the International Union of Architects the sincere thanks of the Queen for their kind and loyal message of greetings, which Her Majesty very much appreciates.'

Sir William said that when the advance notice was sent out to the member countries it was expected that Princess Margaret and her husband would both be present for the Opening Plenary Session. Since then, however, a greater and more personal interest had supervened. They were all greatly indebted to Mr Armstrong-Jones for so kindly consenting to play the chief part in the amended programme.

Mr Antony Armstrong-Jones said that Princess Margaret had asked him to say how very sad she was not to be able to welcome this distinguished gathering from all over the world, especially as she was an Honorary Fellow of the Royal Institute.

He went on to say how encouraging it was that the IUA had grown in strength considerably since its first Congress after the war, and added that his own interest in the ends of the IUA was not entirely that of an outsider. Having spent two years as a student he was still only a layman, but in this country, until recently, to be a layman in regard to architecture

was to be a member of a very indifferent public. Fortunately, interest in architecture today was growing, and for this some credit was surely due to the press for the extra coverage which had recently been given to architectural news. 'However,' Mr Armstrong-Jones continued, 'the most effective way of arousing interest is through original and inventive buildings. Both architecture and architects can only be judged – sometimes hardly – by the resulting work. . . . To the average consumer it is the end product that matters.' It was clear from the choice of theme for the Congress and from the names of those who had been invited to speak that the necessity to improve the quality of the end product was very much in their minds. Certainly the growing gap between world populations and adequate housing was one of the most urgent problems facing them all. So huge a task would involve the combined skills of many other professions.

'But this is a congress of architects', said Mr Armstrong-Jones, 'and it may be permissible, therefore, to make a plea for something that you alone can give us: excitement in architecture, the excitement that comes from calculated boldness and originality. I say "calculated boldness" because originality in this particular art does not come from sudden whims and fancies, but from ideas that are followed up to the end, involving hard application and rigorous tests in practice.' Through buildings like the Seagram in New York, through cities like Brasilia, and through the work of men like Corbusier, world interest in architecture was stimulated, and this in the end should encourage everyone to raise his sights.

Of recent years this country had been somewhat lacking in architectural inventiveness and the excitement that went with it. A congress such as this was therefore a welcome stimulus, and he hoped that it would have the great success and create the widespread interest that it deserved.

The President of the IUA, Senor Hector Mardones Restat, proposed a vote of thanks to Mr Armstrong-Jones. In the course of his remarks he expressed the wish that Mr Armstrong-Jones would perhaps find time to complete his architectural studies, so that they could be sure that he would take a full part in their meetings in the future!

The Secretary General of the IUA, M. Pierre Vago, seconded the vote of thanks, which was carried by acclamation.

Professor Henry-Russell Hitchcock, in introducing his paper, entitled 'A general survey of architectural change caused by the emergence of new techniques and materials', referred to the comment by the Hungarian section on his paper: 'Strange as it may seem, we are by and large familiar with the style

and technology of our time, but have to search for new materials now that the interrelation between the intellectual and the material is extremely complex. *Von Material zu Architektur*, the title of the book by Moholy-Nagy, was quoted at the beginning of Professor Hitchcock's paper. It, no doubt, represented the thinking of the '20s. Our conclusion, however, is exactly the opposite of this, i.e. "From Architecture to Material".'

Professor Hitchcock referred to Professor Nervi, who had achieved a combination of materials and techniques to serve a purpose which he had pre-determined. It was, however, unwise to be too complacent, too certain that they would always have the same attitude towards techniques, and he concluded with a quotation from the distinguished writer Ortega y Gasset 'Technology cannot be considered as a constant movement of progress, because this implies that man has *always* had the same aspirations, technology being destined to satisfy them. A change in the vital attitude of man suffices for the sense of technology to change. History shows us techniques which reached an advanced stage and were not only abandoned but forgotten.'

There, again, was a possible field in which there might be lessons from history. The purpose of this Congress was perhaps best expressed by the Hungarian commentator, who suggested that the time was coming when instead of deriving their architecture from existing materials they should consider the needs of their architecture and devise new materials and methods to satisfy them, as had certainly been done occasionally in the past.

Professor Luigi Piccinato, Professor of Town Planning, Venice University, head of the Italian delegation, took the place of Professor Pier Luigi Nervi, who, unfortunately, was ill, in introducing the paper on 'The influence of reinforced concrete and technical and scientific progress on the architecture of today and tomorrow'.

Professor Jerzy Hryniewiecki introduced his paper, 'The effect of industrialisation on architecture'.

Miss Ellen Schoendorff was then called upon to deliver a message from the United Nations. She said:

'It gives me great pleasure to bring you greetings from the Secretary General of the United Nations and from the Executive Secretary of the United Nations Economic Commission for Europe, and to transmit to you their warm wishes for the success of this Congress. There are two distinct reasons why the UN is taking a special interest in this very distinguished meeting of architects from all over the world. The first is the theme of your Congress and its relation to the work undertaken by the UN in the field of housing, building and planning, which leads directly to the second reason, namely, the growing need to establish close contacts at working level between our two organisations. It is this second aspect to which I should like to confine my remarks on this occasion.

'You said, Mr President, at the opening dinner for the IUA Assembly and Executive Committee, that the time had come when the older international organisations such as the UN and UNESCO should take an increasing and, as it were, more protective interest in the development of the IUA, which has outgrown its stage of infancy and is now a fully fledged teenager of 15. Allow me to mention that the 15th General Assembly of the United Nations took place only last September, and the question of age as such would therefore perhaps call for a brotherly rather than a fatherly or motherly relationship between our two organisations. This brotherly relationship has, in fact, already been in existence for a number of years, when your organisation assumed consultative status to the United Nations Economic and Social Council, and has in this capacity been represented at, and contributed widely to, many meetings of different United Nations policy making bodies. But it was only in 1959 that the time came for working out a more concrete basis for actual collaboration on specific projects. That occasion arose after the Secretary General of the UN, in consultation with the International Labour Organisation, the Food and Agriculture Organisation, UNESCO, and the World Health Organisation, had developed in 1958 proposals for what is called a long range programme of concerted international action in the field of housing, which was composed of projects to be undertaken jointly or individually by the UN and its specialised agencies and interested intergovernmental and non-governmental professional organisations. The programme was subsequently approved by the Social Commission of the Economic and Social Council and the General Assembly of the UN, and has reached its operative stage during this year. It was in recognition of the overwhelming housing needs brought about by growing industrialisation and rapid urbanisation in the economically under-developed countries that the programme was conceived. Its aim is not only to advise and assist governments in devising methods of accelerating the production of building units, but also to improve the housing conditions in these countries within the framework of their economic and social development. In order to achieve these aims it is becoming more and more imperative that ways and means be found to reduce the excessive economic burden which the provision of housing causes on national budgets in the developing areas of the world, and will increasingly do so if current population growths continue, and it is here that a concerted professional effort at international level may eventually bear fruit.

'Your organisation took an immediate and practical interest in helping the UN to embark on implementing the long-range programme when you established in 1959 an *ad hoc* working party to examine areas and possibilities of joint action. The proposals made by the working party were gratefully received by the Secretary General of the UN and have since been communicated by him to the appropriate policy-making bodies for their consideration. Briefly speaking, these proposals covered activities such as the initiation by the IUA of regional meetings of architects interested in and concerned with housing in Africa, Asia, the Middle East and Latin America. There is also the possibility of undertaking preliminary surveys or the preparation of special technical reports on different aspects of the housing problem which would be of direct assistance to governments in need of this type of information. It was, furthermore, suggested that such work be carried out under contract with the UN in connection with specific projects included in the long-range programme. However, since the provision of grants or contracts for undertaking these activities would set a precedent involving the use of Technical Assistance Funds, the Commission decided to refer this question to the Economic and Social Council and the Technical Assistance Board for consideration.

'You may wish to know that as a result of the Social Commission's decision the proposals made by your organisation will now come before the Council at its session this month in Geneva, and I should like to conclude my remarks by expressing the hope that a fruitful, brotherly and long-term practical collaboration between our two organisations on specific projects within the concerted programme of international action in the field of housing may commence in due course.'

* * *

A limited number of copies of the three main Congress papers are available on application to the IUA Congress office, 66 Portland Place. A Report of the Congress will be published at a later date. Particulars will be given in a future issue of the JOURNAL.

A group taken at the RIBA of the newly elected Executive of the IUA before they left to go on tour. *Front row:* R. Corona Martin (Mexico), V-P, IUA; E. Beaudouin (France); L. Blanco Soler (Spain, dep.); E. Mentese (Turkey); Professor Yang Ting-Pao (China), V-P, IUA; Professor R. Matthew (UK), President, IUA; P. Vago (France), Secretary General; Professor H. Mardones Restat (Chile), P-P, IUA. *Second row:* R. Macias Franco (Cuba); Professor D. T. Sougarev (Bulgaria); Professor L. Quaroni (Italy); Professor C. Kitsikis (Greece); W. van Hove (Belgium). *Back row:* Professor van den Broek (Netherlands); F. L. Azeredo da Silveira (Brazil); K. Perczel (Hungary, dep.); Henry Churchill (USA); H. Ahlberg (Sweden); A. V. Vlasov (USSR); E. Grunsfeld (USA); K. Mayekawa (Japan).

Inauguration of the IUA Congress Buildings 3 July

The hot sunshine out of a clear blue sky gave perfect conditions for the animated gathering of Congress members on the opening day to hear the Chairman of the LCC declare the Exhibition open. Mr Harold Shearman was followed by Sir William Holford, President of the Congress, and Snr H. Mardones Restat, President of the IUA, seen in the photograph above surrounded by members, many of them with cameras, taking advantage of the good light

photos: John McCann

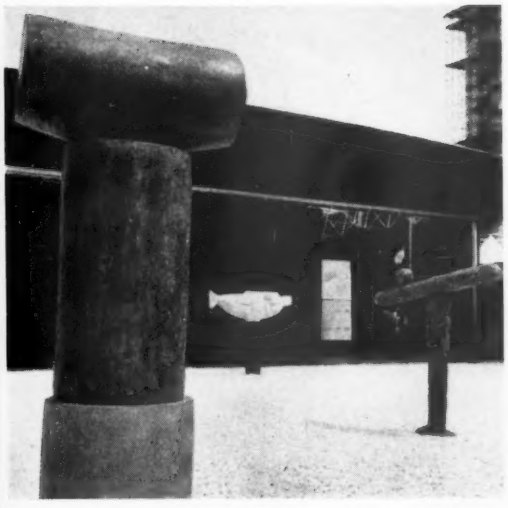
In the HQ building the Congress staff (RIBA personnel) were having to cope with a tremendous flood of demands of every kind from the 1,898 people who had registered for the Congress. The area between the two buildings was admirable for meeting friends and to rest when tired on seats beneath Edward Wright's monumental lettering

IUA Congress first day

Facing
Profe
Presi
This
exhib

Facing page, top picture, left to right: Professor Van den Broek (Netherlands); Mr Gontran Goulden, Director of the Congress; Professor Robert Matthew, Chairman of the Congress Committee and the new President, IUA; Snr H. Mardones Restat (Chile), President, IUA. *Below left:* Professor Yang Ting-Pao, V-P, IUA; and Mr A. M. Sierakowski, taller figure (Poland), in the exhibition. *This page, top left:* M. Pierre Vago, Secretary General, IUA; *right:* Professor Henry-Russell Hitchcock. Below: in the books exhibition: Professor A. Sharon (Israel), and Mr D. Clarke-Hall.

At the inauguration of the Congress buildings.
Top left: Their designer, Mr Theo Crosby.
Right: Prof. R. Gardner-Medwin and Mr J. M. Austin-Smith.
Right, centre figure: Mr Eric Lyons.
Below: Mr Alfred George with Mr Malcolm MacEwen.
Below: One of the Sculpture Courts of the exhibition building.



photos: John McCann

he climax of the Congress
as the Gala at the RIBA.
uests were received by
r William and Lady
lford with their niece
n the photograph, Mr G.
elnar, Australia).
low left: Mr and Mrs
ewis Mumford, and *right:*
r Hugh and Lady Casson
nd daughter

ans: John McCann

M o H and L G Awards for Good Housing Design

Northern Region, Urban: Bidston Court, Birkenhead
24 flats, 13 maisonettes, 14 garages
Architects: James and Bywaters [AA]

Wales, Urban: Croes-y-ceiliog, Cwmbran, Mon.
8 houses, 7 flats
John West [A], Chief Architect, Cwmbran Development Corporation

(*Below*) Rural: Rockfield Road, Monmouth
20 flats. Architect: J. H. Evans [A]

Midland Region, Urban: Alderson Place, Queen's Road, Norwich
24 flats, 4 garages
Architect: David Percival [A] City Architect

Rural: Church Road, Bergh Apton, Norfolk
12 houses, 7 garages
Architects: Tayler and Green [FF]

(A full list of awards is given on p. 390)

N

NOTIC

Cessatio
visions
ceased t
As Fell
G. G.
Balmfor
Brown,
Chong,
M. M.
D. Dekl
Jensen,
V. Kan
V. H. L
Angus
land, S.
C. R. M
Nesbitt,
D. V. R
Eric Th
Vaughar
R. G. V
A. S. Cl
B. A.
Suvernp
Wigley,

The R
Member
Allied S
vices
Departm
requirin
salaried

Empl
Secretar
giving d
qualifica

Assist
offices
but if t
obtain

Co

Copies
deposite
available

Note. A
a comp
number.

City of
Africa.
Group
Centre.
invites a
and arch
them t
South A
in comp

(*a*)
Co
Hal
peti
and (*b*)
Civ
the

The
Part I
R4,000,

Notes and Notices

NOTICES

Cessation of Membership. Under the provisions of Bye-law 21, the following have ceased to be members of the Royal Institute: *As Fellow:* A. Herbert. *As Associates:* G. G. Albert, E. R. Alexander, J. H. Balmforth, C. F. Barker, B. Brennan, J. D. Brown, R. Brown, D. Chakravarti, S. W. Chong, C. E. Collyer, P. W. Crooke, M. M. Cross, Mrs S. M. Crowe, E. Defty, D. Dekker, J. T. Du Toit, Mrs P. Egeland-Jensen, P. Fell, J. W. Hills, M. I. Jayaraman, V. Kandavel, R. S. Leahy, N. W. Lee, V. H. Loney, Mrs M. McL. McDiarmid, Angus MacDonald (16470), R. M. Maitland, S. G. Mandrekar, G. S. Melland, C. R. Monnig, A. T. Motion, T. H. M. Nesbitt, J. K. Parker, J. C. Peeps, J. C. Puri, D. V. R. Rao, G. Salisbury, J. B. Shelley, Eric Thompson, Z. W. Trzebinski, J. M. Vaughan, M. E. Vickery, R. N. Weaver, R. G. Will. *As Licentiates:* H. T. Bower, A. S. Clayton, J. G. Hughes, J. W. Mustard, B. A. Ross, R. E. T. Stockdale, V. M. Suvernpatki, J. E. Thomas, W. R. D. Wigley, A. B. Wilson.

The RIBA Appointments Department. Members and Students of the RIBA and the Allied Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications required and salaries offered.

Assistants should preferably call at the offices of the Appointments Department, but if this is not practicable they should obtain from the Secretary an application form, which when completed and returned to the Institute will enable the Department either to send the applicants particulars of vacancies suitable to their qualifications and requirements or submit their names for vacant posts.

Members and Students seeking official appointments should note that normally these are fully advertised in the weekly professional press, and that therefore the Appointments Department do not as a rule notify them to those on the register.

The Institute will also be glad to advise on most matters concerning architectural employment, including overseas appointments.

Members and Professional Affixes. The Council's attention has been called more than once to the practice among some members of adding a string of letters of doubtful value to the affix indicating membership of the Royal Institute on their letter paper.

This is a matter in which the Council obviously cannot dictate to members, and must trust to their good sense. It should be obvious, however, that the affix of a chartered body of high standing is weakened in effect by the addition to it of a string of other mysterious designations, some of which probably indicate no more than the payment of an annual subscription.

Correspondence with the Institute. In order to facilitate speedier attention to correspondence, and to relieve the staff of a great deal of research, it is particularly requested that members and Students will kindly state in all correspondence with the Institute the class of membership (*F, A, L* or *Student*) to which they belong.

Competitions

Copies of the conditions of competitions are deposited in the RIBA Library and are available for inspection.

Note. An applicant for the conditions of a competition must state his registration number.

City of Johannesburg. Republic of South Africa. Architectural Competition for initial Group of Buildings and Site Layout: Civic Centre. The City Council of Johannesburg invites architects registered in South Africa *and* architects whose qualifications entitle[1] them to registration, on application, in South Africa, to submit designs in two parts in competition for:

(*a*) A new Municipal Office Block, City Council Suite and Public Reception Halls, comprising Part I of the Competition.

and (*b*) A Site Layout of the whole of the Civic Centre site, comprising Part II of the Competition.

The cost of the Group of buildings in Part I is provisionally estimated to be R4,000,000–00 (£2,000,000).

Intending competitors are requested to send their names and, if registered in South Africa, their registration numbers *or*, if not so registered, details of the qualifications which entitle[1] them to registration in South Africa, to the Promoter at the address stated below by 6 October 1961. Such applicants for the right to compete shall agree to have their applications submitted to the Institute of South African Architects, whose decision in the matter of eligibility to compete shall be final and binding. Applications for the right to compete may be accepted *after* the abovementioned date, and will be similarly submitted for decision to the Institute of South African Architects. Intending competitors whose applications for the right to compete are approved, will immediately thereafter be sent the Competition Documents, in which the Full Conditions of Competition are set out.

An application for the right to compete must be accompanied by a deposit of R10–00 (£5) (cheques or money orders made payable to 'The City Treasurer') which deposit will be returned to the applicant if his application is unsuccessful, *or*, if his application is successful, on the receipt by the Promoter of a *bona fide* design, *or*, if his application is successful and he has received the Competition Documents and he then decides not to compete, on the return of the Competition Documents not less than four weeks before the closing date for dispatch or handing in of designs.

Closing date for the dispatch or handing in of designs is provisionally Friday 8 June 1962.

Premiums of R3,000–00 (£1,500); R2,500–00 (£1,250); R2,000–00 (£1,000); and R1,500–00 (£750) are offered by the Promoter for Part I of the Competition.

In addition, prizes to the total value of R4,000–00 (£2,000) are offered by the Promoter for Part II of the Competition.

The Board of Assessors for the Competition is as follows:
Mr B. L. Loffell, *Chairman*, City Engineer of Johannesburg; Professor Sir William Holford, Architect and Town Planner, London; Professor John Fassler, Architect and Town Planner, Johannesburg; Mr John Cowin, Architect, Johannesburg; and Mr Norman Hanson, Architect, Johannesburg.

All communications in connection with the Competition are to be addressed to The Town Clerk, PO Box 1049, Johannesburg, South Africa, or in the case of documents to be handed in: Room 418, City Hall, Johannesburg. Envelope to be marked 'Competition for New Civic Centre'.

Housing Development in Hertfordshire. Last day for submitting designs: 12 December 1961.

Last day for questions: 2 September 1961. Full particulars were published in the JOURNAL for July, page 348.

Government Office Building and Conference Centre. Last day for submitting designs: 12 noon on 2 October 1961. Full particulars were published in the JOURNAL for April, page 221.

The Gas Council House Design Competition. Last day for submitting designs: 31 August 1961. Full particulars were published in the JOURNAL for June, page 303.

International Competition of Ideas for Church Building. The Danish Ministry of Ecclesiastical Affairs invite architects, sculptors, and painters from the whole world to participate, separately or in groups, in an international competition of ideas with the purpose of exploring the possibilities of working out plans for a Lutheran church in a modern residential quarter.

The programme and other competition material which have been drawn up in accordance with regulations for international competitions in architecture and town planning and for international competitions in painting and sculpture, may be ordered through The Secretariat of the International Competition of Ideas for Church Building, c/o The Federation of Danish Architects, 66 Bredgade, Copenhagen K, Denmark.

An amount of D.kr. 25 (£) covering

[1] *Requirements for Registration as an Architect in South Africa:* Applicants for registration *must have passed* the Final Examination for the Degree or Diploma or Certificate in Architecture of the Universities of the Witwatersrand, Cape Town, Pretoria, Natal or the Orange Free State; *or the Final Examination of the Royal Institute of British Architects, or an examination recognised by the RIBA* as equivalent to and exempting therefrom.

forwarding charges, etc., will have to be paid.

Projects to be sent to organisers by 1 September 1961.

International Competition for 'Peugeot Building', Buenos Aires. The Foreign Building and Investment Company invites architects of any nationality to take part in a competition for the design of the 'Peugeot Building', Buenos Aires, to house the offices of large enterprises and cultural and commercial centres.

The conditions governing the competition will be drawn up in accordance with the regulations of The International Union of Architects and the Sociedad Central de Arquitectos, Buenos Aires.

Last date for the receipt of designs: 12 January 1962.

There will be a jury of Assessors of seven persons of international standing.

1st prize:	m$n. 5,000,000 on account of fees.
2nd prize:	m$n. 2,250,000
3rd prize:	m$n. 1,750,000
4th prize:	m$n. 1,000,000
5th prize:	m$n. 750,000
6th prize:	m$n. 500,000
4 mentions of	m$n. 400,000

All the prizes are in Argentine currency 'pesos moneda nacional'.

To take part in the competition it is necessary to apply to Senor Federico A. Ugarte, Architect, Calle Montevideo No. 942, Buenos Aires, Argentina. *Completed registration forms must be returned to Senor Ugarte before* 30 *September* 1961.

Board of Architectural Education

The R1BA Intermediate Examination. May 1961. The RIBA Intermediate Examination was held in London, Plymouth, Manchester, Leeds, Newcastle upon Tyne, Edinburgh and Belfast from 8 to 15 May 1961.

Of the 396 candidates examined, 154 passed, and 242 were relegated. The successful candidates are as follows:

Aggett: Lionel
Aitchison: Miss Anne E.
Anderson: James
Anthony: M. J.
Armitt: D. H.
Arnold: J. H.
Bailey: M. J.
Bailey: P. A.
Barrett: S. M.
Bartosch: P. M.
Baxter: Harold
Bednall: John
Beetlestone: A. G.
Beveridge: Ian
Binns: Peter
Booth: C. D.
Bradford: H. G.
Bradley: J. M.
Bramham: R. J.
Brebner: James
Bush: F. G.
Castledine: B. J.
Chapman: F. J.
Clarke: W. F.
Claypole: B. E.
Cochran: D. R.
Cockroft: R. I.
Cole: H. E. S.
Connell: M. J.
Cramer: C. F.
Crouch: Terry
Cruz-Seruya: Trino
Dafforn: T. B.
Darr: F. I.
Davies: F. A.
Davies: R. A.
Davison: J. R.
De Soyza: Geevaka
Dibbs: J. S.
Dickinson: David
Dinnage: R. B.
Duncan: A. S.
Ekwulugo: T. O.
Ellis: D. M.
Ellison: K. F.
Feeney: E. J.
Fleming: N. K.
Fox: D. L.
Freedman: B. A.
Gammon: R. A.
Gill: P. J.
Gooderham: Graham
Graham: R. W.
Grundy: P. J.
Haigh: Ronald
Hanna: B. C. W.
Heffernan: J. L.
Hegarty: C. D.
Hendy: R. C.
Hobson: G. H.
Holland: R. B.
Houston: D. E.
Howard: E. L.
Hoy: Miss Mary D.
Hubbard: R. R.
Hudson: L. E.
Humphries: Andrew
Husain: Syed
Illingworth, W. M.
Isaacson: L. R.
Jackson: Dennis
James: K. E.
Jamieson: A. D.
Johnson: R. E. B.
Karunaratne: D. U.
Kendall: P. Q.
Kerr: I. C.
King: D. E.
Last: D. S. J.
Lumley: P. A.
McCallum: D. B.
McCarthy: G. F.
MacCleary: B. V.
McCoy: D. F.
McFerran: M. A.
Magee: J. N. C.
Manderson: J. D.
Marshall: A. B.
Martin: J. H.
Mather: J. D.
Meeson: M. J.
Mirza: R. H.
Mitchell: E. R.
Moon: M. T.
Morgan: J. D.
Morton: H. C.
Mosseri: Claude
Muldrew: J. F.
Neale: R. M.
Nightingale: D. S.
Noronha: E. F. G.
Norris: I. N.
Owens: Miss Janet C.
Paston: R. C.
Payne: D. B.
Pealin: W. K.
Percival: A. D.
Pilcher: C. M.
Pointon: P. A.
Pountney: J. M.
Press: Raymond
Price: B. W.
Pugh: W. M.
Purcell: J. P.
Purchase: R. J.
Rankin: A. J.
Rayson: C. T. I.
Reade: P. J.
Redsull: R. F.
Rigler: W. J.
Roberts: J. P.
Robinson: I. W.
Robotham: D. H.
Rowell: M. T.
Santry: J. F.
Saye: R. G.
Scannell: J. C.
Shannon: J. J.
Sharples: Robert
Simpson: I. G.
Smith: Alan R.
Smith: John R.
Southall: L. J.
Stanford: B. J.
Stewart: W. F.
Taylor: R. M.
Teague: J. D.
Thairs: R. H.
Thomas: Barrie
Thomas: W. G.
Tonks: Ronald
Tuck: M. A.
Turner: Miss Mary
Walker: D. S.
Watson: Alan
Watson: Stanley
Wenman: Mrs Gweneth C.
Wilkinson: Trevor
Willimott: Michael
Wilson: C. B.
Winer: Zalmon
Wong: C. K.
Woodhouse: F. M.
Young: J. S.

Allied Societies

Changes of Officers and Addresses

Berks, Bucks and Oxon Architectural Association. Berks Society of Architects. Chairman, E. W. May [*L*]. Hon. Secretary, A. L. R. Crick [*A*], 5 Albert Road, Caversham, Reading, Berks.

Essex, Cambridge and Hertfordshire Society of Architects. President, F. G. Frizzell [*A*]. Hon. Secretary, K. S. Mobsby [*A*], No. 1 Sedding Street, Sloane Square, London, SW1.

South Eastern Society of Architects. Brighton District Chapter. Chairman, K. H. Saunders [*A*].

South Wales Institute of Architects. Hon. Secretary, William G. Wilson [*A*], 103 Bute Street, Cardiff. Secretary, A. W. Holder, 10 Timbers Square, Roath, Cardiff.

Wessex Federal Society of Architects. President, Major A. D. Kirby [*F*].

West Yorkshire Society of Architects. Bradford Branch. Hon. Secretary, J. H. Ayers [*Student*], Messrs W. C. Ayers, 'Nearcliffe', 62 Toller Lane, Bradford 8.

Royal Incorporation of Architects in Scotland. President, Thomas S. Cordiner [*F*].

Royal Society of Ulster Architects. President, Charles Munro [*A*]. Hon. Secretary, J. E. Clarke [*A*], 23 Thornhill Drive, Knock, Belfast. Secretary, Miss Frances McMorris, 7 College Square North, Belfast 1.

Royal Victorian Institute of Architects. President, Best Overend [*A*]. Hon. Secretary, Ronald G. Lyon, 53–55 Collins Place, Melbourne, CI, Australia. Secretary, John B. Islip, 53–55 Collins Place, Melbourne, CI, Australia.

Federation of Malaya Society of Architects. Annual Dinner. The Society held its 12th annual dinner on 17 June 1961, at the Lake Club, Kuala Lumpur. The President, Mr A. A. Geeraerts [*A*] was in the chair and the dinner was attended by some 110 persons. The guest of honour was His Highness the Sultan of Selangor and other distinguished guests included Dato V. T. Sambanthan, Minister of Works, Posts and Telecommunications, Dato (Dr) Ismail bin Dato Abdul Rahman, the Minister of Internal Security and Minister of the Interior, the Mentri Besar of Selangor, Dato Abu Bakar Baginda, the Vice-Chancellor of the University of Malaya, Professor Sir Alexander Oppenheim, and representatives of the professional bodies in the Federation.

The toast of His Majesty the Yang di-Pertuan Agong was proposed by Mr Geeraerts, and that of His Highness the Sultan of Selangor by Mr Chen. The Minister of Works proposed the toast of the RIBA and the Federation of Malaya Society of Architects, to which the President replied. The toast of the Guests was proposed by Mr Shipley to which Mr J. Sharples, Chairman, Joint Group of Engineers replied.

General Notes

Winners of Good Housing Design Competition. The winning schemes in the 1961 good housing design competition, held under the auspices of the Ministry of Housing and Local Government, are given below. The Minister, Mr Henry Brooke, presented the awards on 13 July at the RIBA.

The competition, announced last October, has been held by the Ministry in collaboration with the RIBA to promote the highest standards of design in housing schemes. Groups of ten or more dwellings built between 31 December 1955 and 31 December 1960 by either public authorities or private developers were eligible to compete, and in the judging emphasis was on the interesting and attractive grouping of buildings.

Claverton
decorative

Claverton Manor, near Bath (Architect, Sir Jeffrey Wyatville), now the Museum of American decorative arts. The Director is Mr Ian McCallum

For the purpose of the competition, England was divided into four regions, and Wales was treated separately. Awards for urban and rural building were made, and the winning schemes have been chosen on the recommendations of panels of judges. A total of 463 housing schemes in England and Wales was entered in the competition.

Winning Schemes

LONDON REGION

Award for Urban Building: Munster Square, London, NW1 (76 flats and 80 maisonettes). *Commissioned by:* St Pancras Metropolitan Borough Council. *Designed by:* Edward Armstrong and Frederick MacManus [*FF*]. *Built by:* H. Fairweather and Co. Ltd.

Award for Rural Building: Fieldend, Waldegrave Park, Twickenham, Middlesex (51 terrace houses with garages). *Commissioned by:* Priory Hall Ltd. *Designed by:* Eric Lyons, OBE [*F*]. *Built by:* Myton Ltd. *Awards Committee:* J. L. Womersley [*F*] (Chairman), Prof. Sir L. Martin [*F*], E. T. Salter [*A*].

MIDLAND REGION

Award for Urban Building: Alderson Place, Queens Road, Norwich (24 flats and 4 garages). *Commissioned by:* City and County of Norwich. *Designed by:* David Percival [*A*], City Architect. *Built by:* W. Ames Ltd., Great Yarmouth.

Award for Rural Building: Church Road, Bergh Apton, Norfolk (12 houses and 7 garages). *Commissioned by:* Loddon Rural District Council. *Designed by:* Tayler and Green [*FF*]. *Built by:* Woolnough and Cogman, Norwich (1st contract). Thirtle and Harris Ltd., Norwich (2nd contract).

Awards Committee: G. Grenfell Baines, OBE [*F*] (Chairman), P. B. Dunham [*F*], A. D. R. Cowley, OBE [*A*].

NORTHERN REGION

Award for Urban Building: Bidston Court, Boundary Road, Birkenhead, Cheshire (24 flats, 13 maisonettes and 14 garages). *Commissioned by:* Melville Curlender. *Designed by:* James and Bywaters [*AA*]. *Built by:* James Goode of Liverpool.

Award for Rural Building. No recommendation.

Awards Committee: F. R. Stevenson [*A*] (Chairman), A. G. Sheppard Fidler [*F*], A. A. Bellamy [*A*].

SOUTHERN REGION

Award for Urban Building: Parkgate, Somerhill Road, Hove (47 flats and 18 garages). *Commissioned by:* Bargood Estates Ltd. *Designed by:* Eric Lyons, OBE [*F*]. *Built by:* Gee Walker and Slater Ltd., Park Lane, W1.

Award for Rural Building: Frenchlands Hatch, Ockham Road South, East Horsley, Surrey (13 old people's dwellings and 1 warden's house). *Commissioned by:* The Architects' Benevolent Society. *Designed by:* Clifford Culpin and Partners [*F*/*A*]. *Built by:* Carlton Contractors Ltd., Epsom, Surrey.

Awards Committee: A. Ling [*F*] (Chairman), Prof. R. Gardner-Medwin [*F*], Robert H. Shaw [*A*].

WALES

Award for Urban Building: Croes-y-ceiliog, Cwmbran, Monmouthshire (8 houses and 7 flats). *Commissioned by:* Cwmbran Development Corporation. *Designed by:* John West [*A*], Chief Architect. *Built by:* Geo. Wimpey and Co. Ltd., Cardiff. W. and A. Davies Ltd., Pontypool.

Award for Rural Building: Rockfield Road, Monmouth (20 flats). *Commissioned by:* Monmouth Borough Council. *Designed by:* J. H. Evans [*A*].

Awards Committee: H. J. Whitfield Lewis [*F*] (Chairman), D. P. Thomas [*A*], John Hughes [*F*].

RDI. Mr Jack Howe, FSIA [*F*], and Mr Stefan Buzas, FSIA, have been appointed to the Distinction of Royal Designer for Industry by the Council of the Royal Society of Arts.

English-Speaking Union Travel Grant. Mr Neville Conder [*F*] has been awarded by the Ford Foundation, one of the English-Speaking Union Travel Grants 1961–62 to the United States in the field of the arts.

BASA Conference, York. The British Architectural Students Association is holding its third conference at the York Institute of Advanced Architectural Studies from Friday to Sunday, 1–3 September 1961.

The theme will be 'The Basis for Design', and three main papers will be given, by Dr Denis Chapman, of the Department of Social Sciences, Liverpool University; Mr Henry Swain [*A*] and Professor R. Llewelyn Davies [*F*]. The conference will then divide up into seven groups to carry on the discussion, and will conclude with the Annual General Meeting of the Association.

Accommodation has been booked for 80 people. The fee for the Conference is 3 gns. inclusive for BASA members, 4 gns. for non-members. Application should be made to The Permanent Secretary, BASA, The Building Centre, Store Street, London, WC1.

New survey for London. A complete town planning survey of the County of London is now being undertaken. Starting at the same time as the national census, 25 LCC surveyors will, between them, be visiting more than a million houses, flats, shops, offices, factories and warehouses in the next 18 months. They are working from a mobile office and will make their way systematically across London from Hammersmith in the west to Woolwich in the east.

The new survey will show what changes there have been since 1957 and an electronic computer is to be used in analysing these and relating them to the data on population, housing and employment which the census will reveal, so providing information which will be used in formulating the next Review of the Plan to carry it another step forward to 1980 and beyond.

Mr J. R. James. Mr J. R. James, OBE, BA, FRGS, Deputy Chief Planner of the Ministry of Housing and Local Government, has been appointed Chief Planner with effect from 26 June 1961.

RIBA Golfing Society. The RIBA Golfing Society played the London Master Builders Association Golfing Society at Wentworth on 21 June. The results, at lunchtime, were four matches to the architects and five to the builders. The architects, however, improved in the afternoon, the final results being a win for the architects by 9½ to 7½.

MEMBERSHIP

Resignations. The following resignations were recorded during June 1961: Arthur Robert Hassell [*L*] (Harpenden), Harold Joseph Shepherd [*L*] (Scarborough), Ivor Samuel Davies [*Retd L*] (Bangor, N. Wales).

Transfers to Retired Membership. The following members were transferred to Retired Membership during June, 1961: as Retired Fellow: Francis Goldsbrough (Birmingham). As Retired Associate: Clive Patterson Heath (Pymble, NSW). As Retired Licentiates: Edgar Lamster (Darwen), Bertram James Albert Smith (Great Shelford).

Notes from the Council Minutes

Meeting held on 27 June 1961

Appointment of RIBA Representatives

(*a*) *Darlington College for Further Education.* Mr T. Victor Deas [*A*] (reappointed for a further year from May 1961).
(*b*) *BSI Committee B/93: Glossary of General Building Terms.* Mr Michael Keyte [*A*].
(*c*) *LCC Youth Employment Service: Careers Advisory Committee:* The Secretary, RIBA.

Allied Societies Rules. (*a*) *Essex, Cambridge and Hertfordshire Society of Architects.* The Society have submitted a number of amendments to their Rules in order to meet the requirements as regards postal balloting, etc., consequent upon approval of the recommendations of the Constitutional Committee and the revised RIBA Bye-laws.

The proposed amendments were in order and were approved by the Council.
(*b*) *Federation of Malaya Society of Architects.* The Society have submitted a revision of Rule 9 concerning the qualifications for membership of the Society.

The amendment was in order and the Council gave their approval.

Membership. The following members were elected: as Honorary Corresponding Members 4; as Fellows 14; as Associates 225.

Students. 51 Probationers were elected as Students.

Applications for Reinstatement. The following applications were approved: as Fellow: Herman Alexander Scott; as Associates: Mrs Patience Lisa Bayne-Powell, Horace Alwin Hogarth, Kenneth Peers (as from 1 July 1961), Mrs Margaret Tomalin, Mrs Pamela Warner.

Obituary. The Secretary reported with regret the death of the following members: Charles Tattersall Ingham [*Hon. Corr. Member*], Samuel Leslie George Beaufoy [*F*], Frederick Lawrence [*F*], Stanley Wayman Milburn [*F*], W. Wylton Todd [*F*], William Harold Poole [*Retd F*], Kenneth Walter Aimer [*A*], Humphrey Albert Beeston [*A*], Peter Desmond Gray [*A*], Desmond Droydon Hodgson [*A*], Thomas Edward Jones [*A*], George Albert Bryan [*Retd A*], Ernest James Hickman [*Retd A*], Walter Stephen Tucker [*Retd A*], Dhamanmal Mulchand Asarpota [*L*], John Henry Arthur Bath [*L*], Charles Hart Coppack [*L*], Alexander McDougall [*L*], Malcolm Graham Shaw [*L*], Hampton Gardner [*Retd L*], Patrick Raymond Connolly [*Student*].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

Obituary

Stanley Wayman Milburn, MBE, MC, TD [*F*] died on 16 June 1961.

Mr Victor Bain [*F*] writes:

'Stanley Milburn was a son of William Milburn who founded the firm of W. and T. R. Milburn, architects, of Sunderland.

'After leaving school Stanley entered the firm as a pupil and also studied at King's College, Durham. His architectural career was interrupted by the 1914–18 war in which he served in the RA and later in the 125 Anti-Tank Field Regiment, being awarded the MC and reaching the rank of Major. In the 1939–45 war he was awarded the MBE and the Territorial Decoration.

'Mr Milburn was a life-long member of the Sunderland Cricket and Rugby Club and himself a prominent player in his younger days. He was President of the Club for 12 years, retiring in 1960. He also served on the Sunderland Board of Management of the YMCA, and was a member of the Divisional Council, acting as honorary architect. Mr Milburn was President of the Northern AA from 1939 to 1946. He was a member of the Council of the RIBA between the years 1939 and 1951, and served on a number of committees. He was a member of the Architects' Registration Council.

'Mr Milburn's firm was awarded the RIBA Bronze Medal for the Northern AA area for the Design and Research building, Heaton Works, Newcastle upon Tyne, for Messrs C. A. Parsons and Company Ltd. He was awarded second prize at the International Festival of Architecture and Monumental Art at the 1956 Paris Salon.

'In 1947, Stanley Milburn severed his connection with the firm of W. and T. R. Milburn, and founded his own firm of S. W. Milburn and Partners. In this new association he had full scope for his activities, and the firm has been responsible for a large number of commissions, principally in the north, which included churches, factories, offices and schools. The firm won the recent competition for the Medical Teaching Centre in Cardiff.

'Stanley Milburn was keenly interested in the arts and entered into the spirit of modern architecture with enthusiasm. He never lost an opportunity of extending his wide knowledge by visiting exhibitions, buildings and places of interest.

'He was a lovable character, always cheerful and willing to lend a helping hand where needed. He will be greatly missed by his wide circle of friends, both professional and private.'

The late Peter Gray

Mrs Margaret Gray wishes to thank, through this column, the many friends who so kindly contributed to the memorial fund on behalf of her husband Peter. She is deeply touched by the sympathy that has been shown to her and her children.

Membership Lists

ELECTION: 27 JUNE 1961

The following candidates for membership were elected on 27 June 1961.

AS HONORARY CORRESPONDING MEMBERS (4)

Laprade: Albert, Membre de L'Institut: Architecte en chef des Palais Nationaux; inspecteur général hon. des Beaux-Arts, Paris, France.
Makiya: Mohamed Saleh, BArch.(L'pool), Ph.D(Cantab.), Baghdad, Iraq.
Mardones-Restat: Professor Hector, President of the International Union of Architects; Director of the Institute of Housing and Town and Regional Planning, University of Chile, Santiago de Chile.
Ting-pao: Professor Yang, Vice-President of the International Union of Architects, Nanking, China.

AS FELLOWS (14)

Beddington: (Miss) Nadine Dagmar.
Gibberd: Harry, Birmingham.
Goldthorp: Joseph, Hyderabad, West Pakistan.
Jenkinson: John Mark Mansell, MA, Sheffield.
Key: Peter Stuart, Umtali, Southern Rhodesia.
McGuinness: William, Dip.Arch.(Dunelm), Mombasa, Kenya.
Makins: Thomas Kenneth, Portsmouth.
Merer: Stanley Peter Charles, Dipl.Arch. (Northern Polytechnic), Aylesbury.
Richardson: Kenneth French, New Barnet.
Tietjen: Edward Horace, Ilford.

and the following Licentiates who are qualified under Section IV, Clause 4(*c*) (ii) of the Supplemental Charter of 1925:

Brown: Eric Ernest, Kingston-upon-Thames.
Hill: William Archibald, FRICS.
Paget: Paul Howard.
Sharp: Thomas, CBE, MA, DLitt.(Dunelm), PPTPI, PPILA.

AS ASSOCIATES (225)

Abramson: Clifford Dennis, BArch.(Rand), Johannesburg, South Africa.
Abramson: Stanley Peel, BArch.(Rand), Johannesburg, South Africa.
Adendorff: Albert, BArch.(CT), Johannesburg, South Africa.
Alur: Balaram Venkatrao, Bangalore, India.
Andrew: Edwin Philip, Glossop.
Andrews: Davis Alun Paul, BArch.(L'pool), Goodwick.
Attfield: Raymond Irving, Dipl.Arch.(Northern Polytechnic), Hoddesdon.
Bannister: William Geoffrey.
Barclay: Harry Alexander, Dip.Arch.(Abdn), Kampala, Uganda.
Baron: Geoffrey, Rugby.
Barrett: Michael Vernon, Ilford.
Barron: Thomas, BArch.(L'pool), Cardiff.
Beattie: Alan Scott, BArch.(Wales), Ebbw Vale.
Bedford: Horace Trevor, Liskeard.
Benjamin: William Hugh.
Bennett: Christopher John, Gloucester.
Benstead: John Dennis, Purley.
Berns: Marcus Manfred, BArch.(Rand), Johannesburg, South Africa.
Berridge: Denis William, Oxford.
Bevan: Thomas Lewis, Dip.Arch.(Wales), Shrewsbury.
Bevis: John Drysdale.
Black: John Herbert, Huddersfield.
Blair: Dennis George.
Blenkin: John, Harlow.
Bolton: James Alan, Dip.Arch.(Dunelm), Ware.
Bond: Peter Allen, Epping.
Bone: Sylvester Francis, BA(Cantab.), AA Dipl.
Brand: Anthony Graham, Dipl.Arch.(UCL), Chaldon.
Bray: John Frederick, BA, Dip.TP(Manchester), MArch.(Illinois), AMTPI, Ottawa, Canada.
Breton: Frederick Brian, Pudsey.
Brockwell: John Arthur Cecil.
Brown: Thomas Bradbear, Johannesburg, South Africa.
Bruce: Robert Hector, Taradale, New Zealand.
Brunskill: Alan, Newton.

Bryan: John Dawson, Dipl.Arch.(Northern Polytechnic), Saltburn-by-the-Sea.
Burley: Paul Nicholas, Dip.Arch.(Birm.), Walsall.
Butler: John Sherburne, Accrington.
Cameron: Richard William Grant, DA(Edin.), Edinburgh.
Cannings: Hugh, Dipl.Arch.(Canterbury), Maidstone.
Carswell: Adrian Antony Nicholas, MA, DA (Edin.), Edinburgh.
Chaffer: (Mrs) Heather Grace, BA(Cantab.), Lancing.
Chowdhari: Suryakant Dattatraya, Bombay, India.
Cohen: Norman, Dipl.Arch.(Northern Polytechnic).
Collins: Paul Herbert, Dip.Arch.(Sheffield) Filey.
Comrie: (Miss) Elizabeth Mary, Dipl.Arch. (UCL), Kings Langley.
Cooke: Bryan Vincent, BArch.(CT), Pretoria, South Africa.
Crouch: John Denis, Kingston-upon-Thames.
Cuthbert: Ernest William, Buckhurst Hill.
Danks: Alan Leslie, Dip.Arch.(Birm.), Solihull.
Delaney: James Bernard, BArch.(NUI Dublin), Dublin.
Desphande: Shireesh Atmaram, Nagpur, India.
Dickson: Graham Wilson, MCD, BArch. (L'pool), AMTPI.
Dixon: Colm Brian, Dublin.
Dixon: Michael Ernest, Guinnislake.
Doctor: Siraj Husain, Bombay, India.
Dryden-Brownlee: John, Portsmouth.
Duncan: David Graham Bruce, DA(Edin.), Edinburgh.
Eaves: Peter John, Coventry.
Elson: Graham Michael David, Dip.Arch. (Sheffield), Rotherham.
Evans: John Rheinallt, Dip.Arch.(Wales), Aberaeron.
Evans: Sidney Frederick, Barking.
Farmer: John, Dip.Arch.(The Polytechnic), Luton.
Farmer: Michael John, Wakefield.
Firth: Kenneth, Halifax.
Forrester: Donald, Coatbridge.
Fraser: Colin Hugh, BArch.(CT), Johannesburg, South Africa.
Freedman: Aubrey, Dipl.Arch.(Northern Polytechnic).
Freel: Douglas Munro, DA(Dundee), Dundee.
Friedrichs: Martin Anthony, BArch.(Rand), Springs, South Africa.
Fuller: Raymond Charles, East Molesey.
Furmanovsky: Jack, BArch.(Rand), Bulawayo, Southern Rhodesia.
Galbraith: William, Dundonald.
Gates: Richard Frederick, DA(Dundee), Teheran, Iran.
Geden: Roy Anthony, Coventry.
Georghiades: George, Dipl.Arch.(Northern Polytechnic).
Geraghty: Robin Cedric, BArch.(Natal).
Gillham: Gerald Burgoyne.
Graebe: David, Eastbourne.
Green: Frank Gerald John, Addiscombe.
Green: Ronald Walter, Dipl.Arch.(Northern Polytechnic), Loughton.
Grinsell: John Michael, MA(Cantab.), Cullercoats.
Grossman: Kazimierz Wladyslaw.
Grove-Stephenson: John Christian, Ledbury.
Gynn: Sidney Thomas, Glasgow.
Hall: Robert David, Altrincham.
Hannah: George, Morden.
Hawksworth: Richard, Leeds.
Hayman: Peter John.
Henney: Thomas, DA(Edin.), Edinburgh.
Herson: James, BArch.(Rand), Roodepoort, South Africa.
Hetherington: Francis St John, Dip.Arch. (Birm.), Colchester.
Hills: Nicholas Roger, Eastbourne.
Hitch: William Anthony, Brighton.
Hodges: Thomas Keith, Harlow.
Honer: Peter Walter, Cheam.
Hooper: John Clifford Walter, Penarth.
Hope: (Miss) Beryl Mary.
Hornby: John Brian, Dipl.Arch.(Northern Polytechnic).
Howarth: Benjamin Peter, Chorlton-cum-Hardy.
Howell: William Lynton, Pontypridd.
Hughes: Peter Graham, AADipl., Tonypandy.
Hunt: Brian Raymond, AADipl., Andover.
Jackson: Alan, Bradford.
Jackson: Peter Niven, BArch.(Natal), Mbabane, Swaziland.
Jones: Edward Leslie, Dip.Arch.(Birm.), Walsall.
Jones: Frank, Walkden.
Jones: Ronald Charles Lester, Shrewsbury.
Kampel: Jack, BArch.(Rand), Johannesburg, South Africa.
Kay: Bryan, Leigh.
Kennedy: David Kenneth.
Kennett: John Albert, Dip.Arch.(The Polytechnic).
King: David Eric, Kingston-upon-Thames.
Klavins: Zigurds, Bradford.
Lammin: Anthony Joseph, Dip.Arch.(The Polytechnic).
Lamprell: Brian, Dip.Arch.(Birm.), Solihull.
Le Fevre: (Mrs) Joanna Mary, AADipl.
Leitch: Anthony William, AADipl.
Loban: Conrad Maurice, Tring.
Long: Raymond Walter, Thornton Heath.
Longfield: Michael Benjamin Kenard, Rhyl.
Lowe: Peter Frederic.
McCall: Ian William, BArch.(Rand), Johannesburg, South Africa.
McCardle: Peter Henry James, Dip.Arch. (Manchester), Hale.
McCarthy: Owen Patrick, BArch.(NUI Dublin), Cork.
MacGregor: Alexander G., DA(Edin.), Paisley.
Macie: Bronislaw Ludwik.
Mahadevan: Velayuthampillai, Dip.Arch. (Nottm), Wellawatte, Ceylon.
Mahoney: William Edward, Dip.Arch.(The Polytechnic).
Malion: Jerzy Henryk, DA(Edin.), Toronto, Canada.
Manger: Carl Edmund, Dip.Arch.(Leics.), Leicester.
Mansell: John Sanford, Dip.Arch.(Birm.), Tipton.
Marriott: Philip, Dip.Arch.(Hammersmith).
Marshall: Thomas Desmond, Belfast.
Martin: Brian Roland, Dip.Arch.(Manchester), Salford.
Martin: William, BArch.(NUI Dublin).
Mehandru: Laalot Kumar, New Delhi, India.
Mendelsohn: Basil, Dip.Arch.(Rand), Johannesburg, South Africa.
Michaelides: Andreas Michael, Dipl.Arch. (Northern Polytechnic).
Mills: Peter Ramsay, DA(Dundee), Fraserburgh.
Mims: Robert Hindle, West Wickham.
Minett: Michael John, Dip.Arch.(Manchester), Manchester.
Mitchelson: Alan Stuart, DA(Edin.), Edinburgh.
Morris: Frank William, Dublin.
Morris: George Michael.
Murchie: Peter, DA(Dundee), Ardrossan.
Murnaghan: Alan Michael, Omagh.
Murphy: James Brendan Peter, BArch.(NUI Dublin), Dip.TP(Lond.).
Mutiso: David Muoka, BA(Arch.)(Sheffield), Sheffield.
Nellis: Philip, Stafford.
Neufeld: Stephan Max, Dip.Arch.(The Polytechnic).
Newson: Harold Clive, Dipl.Arch.(Northern Polytechnic).
Nicholson: William James, DA(Edin.), Edinburgh.
Nitsun: Leon, BArch.(CT), Johannesburg, South Africa.
Nightingale: Norman, Bolton.
Page: Roy Cornelius, Cardiff.
Palmer: John Henry.
Pandit: Prabhakar Govind, Bombay, India.
Papacostas: Pieris, Dip.Arch.(Hammersmith), Famagusta, Cyprus.
Parkinson: Cyril, Romiley.
Parsons: Ian Roger, Bridgwater.
Paul: Stanley, DA(Dundee), Teheran, Iran.
Pearlman: Wolf Wolfgang, Salford.
Phillpott: Albert George, Bromley.
Pipe: Michael Wilgress Minty, AADipl.
Powell: Brian Edward, Brentwood.
Pring: Kenneth, Dipl.Arch.(Northern Polytechnic).
Proctor: Kenneth William, Chesterfield.
Puffahl: Mieczyslaw Antoni.
Quek: Kiok Boo, Dipl.Arch.(Northern Polytechnic).
Quilter: Edward Clifton, Woking.
Rainford: Christopher James, Dip.Arch.(Dunelm), Newcastle-upon-Tyne.
Ralph: Peter Michael, Pietermaritzburg, South Africa.
Randelia: Dara Hirjibhoy, Dipl.Arch.(Northern Polytechnic).
Rawson: Keith John, Brighouse.
Rhodes: Gerald Ernest, Dip.Arch.(Manchester), Stockport.
Roberts: John Benson, Dip.Arch.(Wales), Bridgend.
Roberts: Jon Gerald, Oxford.
Roger: Robin Daryl Wood, Dip.Arch.(RWA), Salisbury.
Roseberg: Michael André.
Rushton: Basil James.
Sergeant: Robert Heckford, Harlow.
Servant: Brian Ronald, Dip.Arch.(Natal), Pietermaritzburg, South Africa.
Shaw: Ronald Geoffrey, Wakefield.
Shepherd: John Anthony.
Shirgaonkar: Murleedhar Duttatray.
Shobbrook: Peter George, Chester.
Shone: Kenneth, Dip.Arch.(Leics.), Barnsley.
Simpson: Douglas, Retford.
Sims: John Guilliford, Boston.
Skinner: William Edward Alfred.
Smallbone: (Miss) Mary Anne, Blackburn.
Smith: John Greaves, Dip.Arch.(Birm.), Birmingham.
Smith: Raymond, Stoke-on-Trent.
Soutar: Alan Douglas, Prince George, Canada.
Stewart: Colin Hogg, DA(Edin.), Haddington.
Stoney: Ormonde Robert Arthur, Twyford.
Stuckey: Reginald Bernard, Nairobi, Kenya.
Sturley: Clive Herbert.
Talwalker: Madhav Gangadhar, Chembur, Bombay, India.
Taylor: Edward John Frederic, Macclesfield.
Templer: John Arthur, Dip.Arch.(Pretoria), Pretoria, South Africa.
Thompson: Roger Barnaby Gilchrist, MA (Cantab.).
Thomson: David, Glasgow.
Thomson: (Miss) Margaret Jean, DA(Glas.), Kilmacolm.
Thomson: Raymond Cyril.
Thorn: Donald Campbell, Dip.Arch.(Melbourne).
Tye: Gilbert Tek Keow, Dip.Arch.(Sheffield), Penang, Malaya.
Tyler: Colin John.
Vanezis: Christopher.
Veale: Norman Kerry, Dip.Arch.(Wales), Cardiff.
Wager: Stuart John, Ascot.
Wall: John Henry, Dip.Arch.(The Polytechnic).
Watkins: Horace Douglas, Newport, Mon.
Watson: Brian Donald, Grimsby.
Webster: Hugh.
Westbrook: Richard Harry, Portslade.
Wilkinson: Douglas Alfred, South Benfleet.
Willars: Desmond Thomas, Nuneaton.
Williams: David Mitchell, Dip.Arch.(RWA).
Williams: Leon, Reigate.
Wingfield: John Richard, Dip.Arch.(Sheffield), Sheffield.
Wonnacott: Barry John, Dip.Arch.(Manchester).
Wood: Ralph Denison, AADipl.
Woodley: Derek George, Felixstowe.
Yong: (Miss) Siew-Toong, Dipl.Arch.(Northern Polytechnic).

ELECTION: 7 NOVEMBER 1961

An election of candidates for membership will take place on 7 November 1961. The names and addresses of the overseas candidates found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, RIBA, not later than Friday 27 October 1961.

The names following the applicant's address are those of his proposers.

AS ASSOCIATES (6)

Benjamin: Isaac, B.Arch.(Rand), 9 Isipingo Beach, South Coast, Natal, South Africa. Applying for nomination by the Council under Bye-law 3(*d*).

Care-Cottrell: Errol, Dip.Arch.(Auck. NZ), Wesley Chambers, Victoria Street, Hamilton, New Zealand. Prof. C. R. Knight and the President and Hon. Secretary of the NZIA under Bye-law 3(*a*).

Haffner: Christopher, B.Arch.(L'pool), c/o Harriman Realty Co. Ltd., 14th Floor, Union House, Hongkong. Prof. R. Gardner-Medwin, Eric B. Cumine, Richard E. Lee.

Hickling: David Allen, Dip.Arch.(RWA), c/o Van Ginkel Associates, 71 Somerville Avenue, Montreal 6, PQ Canada. T. H. B. Burrough, F. L. Hannam, Kenneth Nealon.

Padden: Owen Brian, 654 Gorge Road West, Victoria, British Columbia, Canada. J. H. Wade and applying for nomination by the Council under Bye-law 3(*d*).

Wong: Jacob Kam-Yin, BArch.(Manitoba), 11423–80 Avenue, Edmonton, Alberta, Canada. Applying for nomination by the Council under Bye-law 3(*d*).

Members' Column

This column is reserved for notices of changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr Peter Daniel [*A*] has resigned his appointment as deputy chief architect of Peterlee to become Chief Architect to Wm. Loudon and Son, Lanarkshire, primarily to prepare plans for the Bothwell Castle Project. His office and private address is Cambusnethan Priory, Wishaw, Lanarkshire (Wishaw 2245).

Mr Nelson Foley, AILA [*A*] has been appointed Chief Architect to Trust Houses Ltd, 53 Short's Gardens, London, WC2.

Mr N. W. P. Jones [*A*] has been appointed in charge of Page Johnson's Architectural Department at 609 Walsall Road, Great Barr, Birmingham 22A.

Mr G. C. W. Ogilvie [*F*] has been appointed Chief Architect to the City of Nairobi, PO Box 30075, Nairobi, Kenya, East Africa.

Mr I. H. Pirie [*A*] has taken up the appointment of Senior Architect, Ministry of Works and Transport, The Secretariat, Ibadan, Nigeria, where he will be pleased to receive appropriate trade literature.

PRACTICES AND PARTNERSHIPS

Mr Peter Ahrends, Mr Richard Burton, AADIPL. [*A*], and **Mr Paul Koralek,** AADIPL. [*A*], announce that they have formed a partnership under the style of **Messrs Ahrends, Burton and Koralek** at 13 Goodwins Court, St Martin's Lane, London, WC2 (Covent Garden 2649).

Messrs Alexander Beckingsale and Partners [*L/AA*] have taken into partnership **Mr G. J. Newman,** ARICS. The practice continues at 36 Whiteladies Road, Clifton, Bristol 8, and at Walton St Mary, Clevedon, Somerset.

Mr G. A. W. Brandreth [*A*] and **Mr Norman R. Minter**, of **Messrs C. Lovett Gill and Partners,** 41 Russell Square, London, WC1, announce that, as from 1 April 1961, **Mr Kenneth D. Smith,** AA DIPL. [*A*], has joined the partnership.

Mr C. F. Davis [*A*] has commenced in private practice at 29 Clarendon Road, Watford, Herts (Watford 22088 and 23619) under the style of **James Davis,** Architect, and he will be pleased to receive trade catalogues, etc.

Sir Guy Dawber, Fox and Robinson [*FF/A*] have just opened their Midlands branch office at 140 Bromham Road, Bedford, where they will be pleased to receive trade catalogues and technical literature.

Mr Kenneth Cavendish Duncan [*A*] (RIBA Architecture Bronze Medal for Malaya excluding Singapore and Penang) who returned to this country last year has commenced practice on his own account at The Butts, Nether Wallop, Stockbridge, Hants (Wallop 348), where he will be pleased to receive trade literature and catalogues.

The partnership of **Huckle and Durkin,** architects and consulting engineers, has been dissolved by mutual consent. **Mr H. G. Huckle,** AMTPI [*F*] and **Mr J. K. Hubert** [*A*] will continue to practise from 30 Queen Anne Street, London, W1, under the style of **H. G. Huckle and Partners** and they have taken **Mr J. D. Chamberlain** [*A*] into partnership.

Messrs Edmund Kirby and Sons [*F/A*] of 5 Cook Street, Liverpool 2, have taken into partnership **Mr R. Billinge** [*A*], as from 1 July 1961.

Mr Vyvyan Salisbury [*F*] is pleased to announce that he has taken **Mr Stanley Chandler,** ARICS [*A*] into an associate partnership. The firm will practise from Coombe House, Coombe Street, Exeter, under the style of **Salisbury and Chandler.**

The practice of **Messrs Wilkins, Arnett and Knight** has been changed to **Messrs Knight and Collins** [*F/A*] at 99 St Aldates, Oxford (Oxford 42331), and the firm now includes **Mr A. C. Stonebridge,** DIP.ARCH. (Oxford) [*A*].

CHANGES OF ADDRESS

Mr D. Winston Aldred [*F*] has changed his address to 32 Woodcote Road, Wanstead, London, E11 (Wanstead 3762).

Messrs Anders and Dalton [*L/A*] have moved to new offices at 63 Cranbrook Road, Ilford, Essex.

The present address of **Mr Geo. J. Douglas Cowley** [*A*] is 'Moonrakers', Brookhouse Lane, Marshfield, Chippenham, Wilts (Marshfield 286).

Messrs Peter Dunham, Widdup and Harrison [*FF/A*] have changed their London office address to 5 Great Russell Street, London, WC1 (Museum 2469).

Mr Bernard Hills [*A*] has changed his address to Stansted Lodge, Stansted, near Sevenoaks, Kent (Fairseat 379).

Mr N. W. P. Jones [*A*] has changed his address to 'Navrongo', The Wold, Claverley, Shropshire.

Mr R. W. A. Mortimer [*A*] has changed his home address to 8 Woodfield Road, Redland, Bristol 6. His business address remains Alexander Beckingsale and Partners, 36 Whiteladies Road, Bristol 8.

Mr Dennis Sharp [*A*] has changed his address to 24 Windmill Road, Flitwick, Bedford, (Flitwick 355).

Mr Ellis E. Somake [*F*] has changed his address to 50 Woodland Drive, Hove 4 (Brighton 57252).

Mr A. Desmond H. Thompson, DA(EDIN.) [*A*] has moved his office from 20 May Street, Belfast, to 37 Malone Road, Belfast (Belfast 660743). His home address remains 'Ardmore', 13 Saintfield Road, Newnonbreda.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Fellow, conducted own architectural practice in London for twelve years, in Canada for ten years, returning to UK, wishes to join busy progressive expanding firm of London architects with a view to partnership after probationary period. Capital available. Please reply to Box 268, c/o Secretary, RIBA.

Associate aged 33 (University trained) seeks position leading to partnership with established firm preferably practising in Cathedral city or large town of character in southern England. Last five years experience as chief assistant in medium-sized firm of architects situated in central London. Some capital available. Box 272, c/o Secretary, RIBA.

Member with well-established practice in Croydon, is willing to consider offering junior partnerships to one or two Associates who, after a probationary period as senior assistants, prove themselves suitable. Box 277, c/o Secretary, RIBA.

Associate with sound experience and ability to work hard and quickly required with view to partnership in rapidly expanding East Midlands practice. Box 278, c/o Secretary, RIBA.

Architects with extensive and diverse practice centred in pleasant north-west county town have an excellent opening for a junior partner. Box 279, c/o Secretary, RIBA.

Fellow with old-established practice in central London, on retirement of senior partner, seeks new partnership with architects and/or consulting engineers. The practice is mainly commercial and industrial, with some school and general work. Would consider amalgamation or mutually advantageous arrangement as London office for provincial practice. Box 282, c/o Secretary, RIBA.

Young Associate seeks full or associate partnership in pleasant area away from London. Wide experience. BARCH., MCD., AMTPI. Capital available if required. Box 283, c/o Secretary, RIBA.

Associate with considerable experience, available October, seeks partnership or position with responsibility leading thereto, preferably with elder member contemplating retirement, car owner. Some capital available. Box 284, c/o Secretary, RIBA.

Large, established and expanding country practice in Berkshire requires a qualified chief assistant, preferably school trained, with a view to purchase of junior partnership after probationary period. Must be married, about 35 years of age, with public school education, and have above average all round ability with wide practical experience in private practice covering both contemporary and traditional work. Box 286, c/o Secretary, RIBA.

Expanding Midlands office of a well-established group of architectural practices, seeks a young associate partner to take responsibility of design in a wide range of projects which include central area redevelopment schemes, churches and schools. Box 288, c/o Secretary, RIBA.

Box 241—the advertiser wishes to thank all those who replied, and to state that his requirements have now been met. It is regretted that, owing to the large number of applications received, it has been impossible to send individual replies to all correspondents.

Box 242—the advertiser acknowledges receipt of all replies and regrets that it has not been possible to forward individual replies. The matter has now reached a satisfactory conclusion.

ACCOMMODATION

For sale. Small architectural practice, south-west coast town, in private residence on main road, garden at rear looking direct on to sea and superb coastal scenery. Residence contains two front rooms as offices, built-in garage, three bedrooms, lounge, kitchen, bathroom and sep. WC, conservatory. Owner retiring will dispose of the whole including furniture and office equipment. Box 280, c/o Secretary, RIBA.

Owing to the death of the principal of an old established practice in Dover, his widow is desirous of selling the combined office and residence together with the office equipment. Box 285, c/o Secretary, RIBA.

MISCELLANEOUS

For sale. Masons continuous dyeline printing machine with Admel developing machine. £45. Box 281, c/o Secretary, RIBA.

For sale. Buckram bound volumes of RIBA JOURNAL, Nos. 49–51, 56–60, 64 and 65. £1 each volume. Box 287, c/o Secretary, RIBA.

The Royal Institute of British Architects, as a body, is not responsible for the statements, made or opinions expressed in the JOURNAL.

ABS

Holiday and Travel Risks

Medical and Nursing fees and additional Hotel and Transport charges incurred as a result of injury and illness on holiday may be covered for a very modest premium.

Loss of or damage to personal effects, including clothing and valuables, is also covered under this Holiday Travel Policy.

Please address inquiries to:

The Manager,
ABS Insurance Agency Ltd,
66 Portland Place,
London, W1
(Telephone: Langham 5533)

Correspondence

The Editor, RIBA JOURNAL

Architecture and Social Conscience

Dear Sir, – The most significant feature of the present-day architectural scene in Britain is not, I think, the split amongst advanced designers into what may be loosely termed 'functional' and 'organic' architecture.

The most dangerous phenomenon of British architecture today is that architects are fast losing their social conscience that was the spearhead of leading architectural design and town-planning in this nation and elsewhere in Europe from 1925 to 1951.

It is natural that architects, as artists, are largely preoccupied with building as a form of personal expression. Unfortunately 'commercialism', and the financial considerations of short-term gain, have a far greater impact on building design than most architects realise. The fact that buildings chosen for illustration in the RIBA JOURNAL for June 1961 come under the heading of 'social' and 'educational' is noteworthy. Commercial buildings have been conveniently ignored!

During the last decade, really vital and effective large-scale planning in Britain has been abandoned in favour of *laissez-faire*. Architects are seeking to find themselves in subjective detailed design, rather than applying themselves to problems of social need and national urgency.

Appalling conditions in Britain still exist. Atrocious slums, intense traffic congestion, filthy railway stations, and commercialism in the form of ill-conceived and misplaced office accommodation is very rampant. Fortunately the sombre picture will improve by force of sheer necessity. The present building boom cannot last for ever. New schools of civic design are being established. I appreciate that the RIBA is doing a great deal to further the cause of a more healthy and humane environment for British people. I only urge that senior members of the RIBA make themselves vocal at national and political level.

Too often today, the public image of our profession is dominated by the 'prima donna' type of architect. The greatest buildings of the past in Britain were built by anonymous, but divinely inspired, stonemasons.

If British architecture is not only to retain its present impetus (in terms of production) but to regain its lost sense of direction, we must not hesitate to press for urgent action in the fields of regional planning and detailed civic design, before Subtopia and Mammon engulf us all.

Yours faithfully,

DEREK ABBOTT [*A*]

The Three-Tier Profession

Dear Sir, – The thought of a two-tier profession is horrifying enough, but even worse s Mr Charles Sewell's three-tier one. The Jesuit-like formal educational policy he outines – lasting half a lifetime – might be vell suited to the celibate architect-monk vith little need for much of a living, but it ertainly is not very attractive to the man vith family commitments. And one thing is certain, the carefully graded hierarchy will ensure that those fortunate enough to be in the Master Class will have plenty of experienced underpaid hacks called Associates aged from 25 upwards.

Mr Sewell's views make one wonder if the ideas of a much respected architect who didn't believe in exams or professionalism weren't right; they could be summarised as follows: less sophism, more hard work, and a little more humility.

Yours faithfully,

PETER E. SHARP [*A*]

Pre-contract Practice

Dear Sir, – I have read with interest Mr Alick Low's review of *Pre-contract Practice for Architects and Quantity Surveyors* in the April JOURNAL, but was sorry to see no mention of the supplemental Specification Notes.

The notes consist of a series of headings covering every matter which might be met with in normal building work, and are set out in tabular form with space for the architect to insert his requirements. Initially these notes were spiral bound but now they are being reprinted in an alternative loose-leaf form to enable carbon copies to be made.

In these days when all concerned with building are called upon to know more and more about more and more, the authors of *Pre-Contract Practice* believe, and have found, that not the least valuable of their uses are their effectiveness as an *aide-memoire* for architect and quantity surveyor, helping to ensure that nothing is overlooked in the pre-contract stage when the foundations of the building are laid long before the first batch of concrete is mixed.

Yours faithfully,

C. A. ROGER NORTON [*F*]

Architectural Education

Dear Sir, – Since about 1957 architectural education has been under active consideration within the profession, the Institute and even in some schools of architecture. Some agitation in the various journals, the revolution at the Bartlett, the Oxford Conference and the formation of BASA have at last led up to the present position of serious thinking about education.

Those of us who received our training prior to this may well be a little jealous of present-day students who can feel that their school staffs and the RIBA are actually taking their responsibilities seriously. This position, however, is only the very beginning. The next stage is to attempt to formulate the content and methods of architectural education.

By means of the Board of Architectural Education and by controlling admission to Associateship the RIBA is absolutely responsible for all professional training. However, the Board uses its power mainly to approve existing courses at the various recognised schools and to ensure from time to time that the standards at these schools are maintained.

The responsibility for the formulation of the various courses is, nevertheless, firmly vested in the schools themselves. Whether this should or should not be so need not concern us here. The deplorable decline in architectural teaching during the '50s was certainly due to failings of school staffs, but why did the Board fail to observe what was happening and act effectively to stop it?

Given that a particular school acknowledges its duty to formulate its own courses, its principal and staff may conceivably still require advice or guidance or simply up-to-date information on teaching methods in use elsewhere. They may want to compare their current course with those at other schools, they may want to start post-graduate courses or they may want to take on some research work; they may want to make changes whose effect they cannot accurately predict, yet they know that they must continue getting their methods sanctioned by the Board. To whom can they go?

In my opinion they ought to be able to obtain these services from the RIBA itself. In an article on 'Research' (RIBA JOURNAL, April 1961) Peter Cowan suggested that '. . . It is obviously not the function of the RIBA to concern itself with research on its own account except in so far as it already carries out investigations on professional matters.' I think it is a pity that he did not *specifically* include professional training as an absolutely essential matter into which the RIBA should carry out investigations, though I feel sure this is implied.

In addition to the present work of the Board, I suggest that the RIBA (through the Board or otherwise) should do the following:

(1) Collect data in the greatest possible detail on all current recognised school courses; quantitative data on such matters as numbers of students and staffs, lectures given, hours of studio instruction, criticisms, examination results, etc.
(2) Collect similar data and descriptive information on architectural education abroad (especially in technologically advanced areas such as the US and Scandinavia).
(3) Administer funds obtained both *from the RIBA itself* and from other sources (e.g. Government, Universities, etc.) to be used specifically for research and experiment in architectural education and methods.
(4) Obtain opportunities to observe, on behalf of the profession, original or experimental work in architectural education, especially post-graduate courses which are often done outside the recognised schools.
(5) Make available information obtained under (1)–(4) above *at least* to all recognised schools and also to all members of RIBA Boards and Committees, preferably by means of a regular publication. (The function of the RIBA as a 'communication agency', see article quoted above.)

I would like to emphasise the suggestion in (3) above that the RIBA itself should finance and organise research in architectural education, just as it does in studying office organisation and so on. Of course this would mostly be conducted at recognised schools, but by this method the whole of the profession would have access to the results. A small multi-disciplinary team, including an architect, an educationist, a pyschologist, and so on, may well be needed for this work. The majority of architectual teachers are merely qualified as architects

and need considerable assistance from these other experts.

As an example of the need, I would like to draw attention to the now much-discussed subject of post-graduate training. Until recently there were hardly any courses for architects, but now more and more are being held on every aspect of architecture. Many of these are short and unique, and the techniques used and results obtained are never recorded or published. Information of this kind ought to be readily available to organisations and individuals who are planning similar courses. Naturally some such information exists, but it is not systematically collected or generally accessible and so quite a high proportion of courses repeat the sterile patterns of earlier ones and fail to have maximum effect, or else they miss the opportunity to adopt a new and successful form.

I have tried to outline a field of investigation which the profession should be exploring. Further, I have suggested that the RIBA – more than any other body – should be initiating and paying for this work. I am certain the need for it exists.

Yours faithfully,

PETER SCHER [*A*]

M. Le Corbusier and Mr Yerbury

Sir, – How can you debase the JOURNAL of an honourable profession by descending to the level of the worst of our daily press?

I refer to the insults to two well respected men by referring to them as 'Yerb' and 'Corb' on page 290 of the June issue.

LAURENCE M. GOTCH [RETD *F*]

Practice Notes

PRACTICE QUERY

1. Basis of Fees for Partial Service

Q: I have prepared working drawings for a job which I estimated would cost £16,500. The lowest tender is, however, £15,750. The client has now abandoned the work for private reasons and I wish to submit my account for fees. Do I base these on my estimate or the amount of the lowest tender?

A: Fees for such a Partial Service is based on the architects' estimated cost of the work (Clause 3(iv) of the Scale of Professional Charges). You should therefore base your fees on your own estimate of £16,500.

If, however, the work had proceeded and the total cost of all executed works had been no more than £15,750, your total fee for the architectural services outlined in Clause 1 of the Scale of Professional Charges would be based on £15,750.

National Joint Council for the Building Industry

Alterations in Working Hours and Wage Rate Adjustments. The National Joint Council for the Building Industry have decided:

(*a*) That as from Monday 2 October 1961, the normal weekly working hours shall be reduced from 44 to 42.

(*b*) That concurrent with the reduction in working hours the Grade A Standard Rate for Craftsmen shall be advanced to 5*s*. 6*d*. per hour.

The Council have also made certain amendments to the National Working Rules affecting the overtime control and meal intervals and holidays.

RIBA Form of Contract

The principle upon which the Fluctuation Clause 25A in the RIBA Standard Form of Contract is drawn is that the contractor should include in his price for all costs known to him at the date of tender. His prices are to be based upon the rates of wages and other emoluments and expenses payable in accordance with the rules or decisions of the National Joint Council for the Building Industry or other appropriate wage fixing body applicable to the works and current at the date of tender. It is a decision of the National Joint Council that wage rates in the building industry shall be increased next October. Contractors therefore tendering on RIBA conditions of contract whether at a firm price or with clause 25A included in the contract should include in their prices for the increases in wages which become operative next October.

The above principle does not however apply in the RIBA Contract to employers' contributions payable under the National Insurance Acts. Originally increases in health and unemployment contributions were not covered by the fluctuation clause but the National Insurance Acts and the extent of the rises in employers' contributions and the manner in which they have from time to time been announced by the Government, made it necessary to bring such increases within the scope of the clause. Where clause 25A is to be included in the Contract the Contractor has to take account in his prices only of the National Insurance contributions actually payable by him at the date of tender. Any increases in such contributions which become payable after the date of tender, even if he knew of them when he tendered, are recoverable as a net addition to the Contract sum. (Extract from *The National Builder*, May 1961.)

Standard Form of Building Contract

Messrs Charles Knight and Co. Ltd, local government publishers and law printers, have recently published a supplement to the Standard Form of Building Contract, by Sir Derek Walker-Smith and Howard A. Close. Copies may be obtained free on request if a stamped addressed envelope (6*d*. stamp, envelope 9 in. by 4 in.) is sent to the publishers at 11–12 Bury Street, London, EC3. Copies of the book, together with supplement, are available at £2 5*s*., plus 2*s*. postage.

Form of Tender for use by Nominated Suppliers

The attention of the Practice Committee has been called to instances in which members have altered the wording of this standard Form of Tender in some way and have inserted other conditions. In particular, the terms of Clause 5 have been varied by stipulating that the Nominated Supplier remains liable for making good by replacement or otherwise any defects in the materials supplied which appear within a specified number of months from the date of practical completion of the Works under the main building Contract. This is contrary to the intention of Clause 5 which expressly limits the duration of such liability on the part of the Nominated Supplier to a specified period from the date of the delivery of the materials or goods to the site. From the standpoint of the Nominated Supplier, this takes account of the fact that the date of the delivery of the materials or goods to the site may be long in advance of the stage of practical completion of the Works under the building Contract.

The Practice Committee cannot approve of any such variation by members of the express terms of the Form of Tender for use by Nominated Suppliers, which was issued in 1956 under the sanction of the RIBA, the RICS, and the NFBTE following upon discussions with the National Council of Building Material Producers.

It is important that the Form should be brought to the notice of a prospective Nominated Supplier at the time of invitation to tender.

Form of Contract for Demolition Work

The attention of the Practice Committee has been drawn by several members to the Form of Direct Contract recently issued by the National Federation of Demolition Contractors.

The Committee do not feel free to recommend the use of this Form to members since it does not contemplate the engagement of an architect to act in a supervisory capacity on behalf of the building owner.

It is the opinion of the Practice Committee that if a contract for demolition work under the supervision of an architect is to be let independently of a main building contract, then the RIBA Standard Form of Contract (without quantities) can be readily adapted for the purpose.

Junior Liaison Committee of Architects, Quantity Surveyors and Builders

A residential course on 'Building in 20 years' time' is being arranged at Downing College, Cambridge, from 15 to 17 September 1961. The speakers will be Mr E. D. Jefferiss Mathews, OBE [*F*], Mr D. E. E. Gibson, CBE [*F*], Mr P. Grafton, FRICS, and Mr D. E. Woodbine Parish, FIOB. Details will be announced later.

Tec

Intern
Educa

The Go
to orga
an inter
building

A Na
David E
responsi
held its
mittee
United
UNESCO
authorit
London
tions, th
the Nort
the Scot
Ministry

The n
be to
machine
informat
educatio
ence to
countrie

Much
many co
America
massive
lopment
co-ordin
of effort,
of the s
knowled

The c
at an Ec
in Milan
the Twe
with a p
gress, u
gates, th
asked to
London
invitatio
by UNES
ment.

Colou

Factory
industry
or even
functions
are imp
been est
Factory
several y
various t
for facto
tects or
sections,
tions. Th
propertie
them wit
sight, to
design.

The se
applicati
a descri
('Colours
paints').
in which

[1] Factory
Factories'
($1.35 USA

Technical Column

International Conference on Educational Building

The Government has accepted an invitation to organise, in association with UNESCO, an international conference on educational building to be held in *London in July* 1962.

A National Committee appointed by Sir David Eccles, Minister of Education, to be responsible for organising the Conference, held its first meeting on 2 June. The Committee consists of representatives of the United Kingdom National Commission for UNESCO, the associations of local education authorities and education committees, the London County Council teachers' organisations, the University Grants Committee, the Northern Ireland Ministry of Education, the Scottish Education Department and the Ministry of Education.

The main object of the conference will be to propose permanent international machinery for organising the exchange of information and personnel in the field of educational building, with particular reference to the needs of the developing countries.

Much is already being done to assist the many countries in Africa, Asia and South America who are now beginning to mount massive programmes of educational development. But as there is no machinery for co-ordinating this work, there is duplication of effort, and the best use is not being made of the scarce resources or expert skill and knowledge.

The conference was originally suggested at an Educational Building Congress held in Milan last October in connection with the Twelfth Milan Triennale. This ended with a proposal from the floor of the Congress, unanimously accepted by the delegates, that the United Kingdom should be asked to organise a further conference in London as soon as possible. It is this invitation which has since been endorsed by UNESCO, and accepted by the Government.

Colouring in Factories

Factory Building Studies No. 8. Colour in industry is not merely a form of decoration or even a 'welfare' measure. It has certain functions to perform and the factors that are important for practical success have been established. The latest report in the Factory Building Studies series,[1] based on several years' work on the use of colour in various types of building, is a concise guide for factory managements and their architects or colour consultants. It has two sections, both containing coloured illustrations. The first section describes the basic properties and effects of colours, linking them with certain facts about human eyesight, to form general principles for colour design.

The second section explains the practical application of these principles, starting with a description of British Standard 2660 ('Colours for building and decorative paints'). It indicates stage by stage the way in which colours for each element of the interior become disciplined so that a picture is formed of the characteristics essential to good factory colouring. The examples are mainly for daylight but there are notes on the special problems arising where lighting is partly or wholly artificial. As lighting and colouring are inter-related, this Study is complementary to the earlier Study (No. 2 in the series) on 'The Lighting of Factories'.[2]

[1] Factory Building Studies No. 8 'Colouring in Factories' published for DSIR by HMSO, price 7*s.* 6*d.* ($1.35 USA), by post 7*s.* 10*d.*

[2] Factory Building Studies No. 2 'The Lighting of Factories', published for DSIR by HMSO, price 3*s.* 6*d.* (63 cents USA).

The Story of CLASP

The Ministry of Education's Building Bulletin No. 19, 'The Story of CLASP' (HMSO, price 5*s.*), published on 28 June described the development and present functioning of CLASP – The Consortium of Local Authorities Special Programme. This consortium is the first example of a group of public authorities coming together voluntarily to pool their professional resources to develop and control a system of prefabricated building construction for their own use and thus to secure the full economic advantages of the production of standardised components in quantity.

The Bulletin outlines the principal developments in post-war prefabricated school building undertaken by Hertfordshire and the Ministry of Education and the further development undertaken by Nottinghamshire County Council in 1956 in working out the details of the CLASP system of construction. Throughout the 15 years briefly covered by this part of the Bulletin the aim has been to produce systems of prefabricated standard parts which could be assembled in a wide variety of ways to meet the various requirements of different types of buildings and different sites.

The annual Nottinghamshire building programme was not in itself sufficiently large to secure the most favourable prices for its factory-made components. But the association with Nottinghamshire of other public authorities in the Consortium and the growth of the total building programme of the Consortium from £2½ million in 1958–59 to more than £7 million in 1961–62 has resulted in considerable savings in the price of many of these components. Consequently, members of the Consortium are now able to erect buildings in the CLASP system which compare favourably in price and quality of finish with other contemporary buildings and enjoy the additional advantages of speedy erection, flexibility in design and a minimum need for scarce types of craft labour on building sites. Moreover CLASP buildings do not require costly preventive measures when built on sites liable to mining subsidence.

Equally interesting is the organisation of the Consortium, which has no constitution or standing orders, but works informally through the policy meetings of its elected members and chief officers, and through the monthly executive meetings of its working party. The offices of each authority are responsible for the design and the tendering and supervision work of each of their own building projects; but the Consortium's working party is responsible for arranging the invitation of tenders for the CLASP components used on jobs by all its members, and controls and modifies the design of the various components as the result of the development work which it undertakes.

The Bulletin looks forward to the formation of other voluntary associations of public authorities on the lines of the CLASP Consortium to standardise and rationalise component items in their buildings and methods of assembly. The lesson of the CLASP Consortium is that this should result in considerable economic advantages to both tax and rate payers, giving better value for money spent on educational and other building projects and a more economic employment of the nation's resources.

The second part of the Bulletin consists of a technical description of the existing CLASP system while the third discusses various analyses of cost.

Building Exhibition Conference: Drawings for building

In an industry which depends on teamwork, the activities and decisions of each member of the team must be readily and promptly available and this co-ordinated information should be quickly understandable on-site.

The lack of timely and efficient communication has bedevilled the building industry for many years.

Perhaps the most important means of achieving this is the working drawing. Yet is this, in its present form, the best means? It can be difficult to store in a cramped site office, it can blow into torn pieces in a high wind, rain can blur it into illegibility, different office methods can bewilder a site foreman.

The question of what can be done to improve this important document will be among subjects discussed during a two-day conference on 'Drawings for Building' which is being held at the Building Exhibition in Olympia on 16 and 17 November. Representatives from all sides of the industry will be present on a panel which will put forward points of view to provide the basis for a discussion to which members of the professions and industry are invited to contribute.

People interested are invited to write to the Conference Secretary, 11 Manchester Square, London, W1, and further information will be sent to them when available.

Structural Waterproofing

Members are invited to communicate with Mr John C. Maxwell-Cook, AMICE, AMISTRUCT.E, MSOC CE (France), MCONS.E, MSE, at 12 Bristol Gate, Brighton, Sussex, in connection with a book which he is now finalising entitled *Structural Waterproofing*. He would very much like to receive details of any interesting structural waterproofing contracts, with which members have been associated. The usual acknowledgements would, of course, be made in the preface to the text.

ANTHONY WILLIAMS [*A*]

The Closing Plenary Session of the VIth IUA Congress

Held in the Royal Festival Hall, 7 July

Sir William Holford, PRIBA, President of the Congress, in the Chair

The Secretary General of the IUA (M. Vago) announced the names of the winners of the IUA Perret and Abercrombie Awards for 1961.

The presentations were then made by the President of the IUA to Mr Candela, Mr Donald Gibson, CBE [*F*], and Mr Sven Markelius.

The President then called upon the Rapporteur-General, Mr J. M. Richards, CBE [*A*], to read his report.

Mr J. M. Richards: We are a gathering almost exclusively of architects, but I think one of the important things that comes out of the discussions at this congress is that the architect cannot any longer stand alone. The new materials and techniques that we have been speaking of depend for their usefulness – indeed, for their existence – on an industry capable of exploiting them and an economy capable of supporting them, and if the architect does not find some way of participating in the processes of industrial and economic planning, building will continue to develop in its present direction – industrialisation is here whether we like it or not – but it will be the worse for the absence of the architect's controlling mind and eye, and of his sense of purpose.

I emphasise 'purpose' because the architect is the one man qualified to keep the whole picture in front of him; to bear in mind not only the great efficiency and economy that are made possible by new materials and techniques, but the contribution they may make to an improved environment for everyone: improved aesthetically, humanly and socially.

Many of our discussions this week have been concerned with prefabrication and the future it offers us. But we do not have to look far into the future to see its influence on our profession. It is with us already. Look around our cities – look at the photographs in the Congress Exhibition – and observe, for example, the prefabricated curtain-walling which, for reasons of economy, convenience, speed or fashion, clothes so many of our framed buildings, or at the prefabricated panels that have contributed so much to the economics of housing, and note that more and more it is such components that determine the quality of our architecture, but less and less are they under the control of the architect. In the words used by Mr Lewis Mumford during one of the Congress discussions: 'Many architects have accepted the new position that he has become little more than an expert in packaging, giving a superficial finish to the outward aspects of a building whose apparatus and structural forms were no longer subject to his design.' But that is not architecture. Nor is the invention of new techniques. New techniques are always a stimulation to architecture, but it is not enough to invent, still less to applaud what others invent for us. We must integrate architectural use with industrial production and let each of these learn from the other. The architect must be prepared to adjust his habits of thought and work so as to meet these and other new conditions.

Considerations like these have clearly been in everybody's mind during this week's discussions, and there has been a general awareness, I think, that our modern problem is to assimilate, and make proper use of, the embarrassing riches in the way of new techniques that science has made available to us – techniques which allow us to do almost anything; whereas in the past the problem was to invent the techniques for what we wanted to do. As the Czechoslovak comment on the first Congress paper succinctly put it: 'Architecture does not accept the results of technical progress passively, but participates actively in their development and exploitation'. Development, you notice, as well as exploitation, which means, once more, early decisions on what new materials and techniques are needed, not only from the point of view of their economy and utility, but also from the point of view of whether or not they are ideally shaped to give the architect the widest opportunity of fulfilling his social duty of building as well as he knows how.

It means the architect participating in study and experiment alongside the industrialist who is going to make the materials, the contractor who is going to use them, the social planner, the town planner and many others; not forgetting – perhaps more important than any – the future users of the buildings.

Britain, drawing on her experience of recent years, insists in her commentary on Professor Hryniewiecki's paper on the value of architects engaging in development at the same time as they work on their current programme of buildings; on the need for architects to think of the future and try to discover not only what techniques need improving and how to improve them but what new techniques are needed. It is significant, I think, that in the British school-building programme, which has been several times referred to during the Congress and which was the fruit of long-term development work in the interest of industrialised building, the collaboration was not only between architects and industrialists but between architects and educationalists – the future users of the building.

Professor Hitchcock, at our opening session, made the issue very clear when he commended the Hungarian comment that, instead of progressing from materials to architecture, we should now think in terms of progressing from architecture to materials. Such is our new command (or potential command) in the physical sciences that, as several speakers have pointed out, we are in a position to invent materials to suit ascertained needs; in the case of certain plastics and laminates we are already doing so.

Analysis of needs is therefore one essential, as we all seem to agree, for the production of good architecture. At this Congress we have been concerned with the technical means of meeting these needs; in particular the new means that science has put at our disposal. They are before our eyes and have been before our eyes all this week, so perhaps this is a suitable point at which to refer for a moment, before I go on to speak of the papers and discussions at the Congress, to the buildings put up to house it. For the headquarters and exhibition buildings can fairly be regarded as part of the British contribution to the consideration of the theme of the Congress. Besides providing us with a gay and agreeable environment in which to meet, Mr Theo Crosby has illustrated for us, in these two buildings, several aspects of the Congress theme – Mr Crosby, I should have said, together with his industrial collaborators, because of course the close co-ordination between industrialist and architect is one of the significant points the buildings illustrate. There the buildings stand, camping (as Mr Ruari McLean wrote recently) in front of the Shell building like the aluminium tents of some besieging army. They are no more than transitory, impromptu buildings – which have incidentally the merit of looking so –

but the way they derive character from their experimental use of materials, their economy of means and speed of construction, have been the visible evidence, before us every day, that the army is on the move.

This brings us straight to the subject of Professor Hryniewiecki's paper. He gave us a far-reaching analysis of the implications of industrialisation and the directions – some of them a long way in the future – in which architecture may be led by the inevitable technological processes of the modern world. I know the other speakers will forgive me if I seem to give most of my attention to his paper and to the discussions that arose from it, because the questions he asks are in a sense those to which the other papers lead up, and it was noticeable that much of the discussion that arose out of the other two papers was in fact about the subject of Hryniewiecki's paper, namely, the implications of industralisation.

Industrialisation is one of the far-reaching, inescapable facts of our day, and it takes some of its importance from being our only sensible way of responding to another inescapable fact: the vast, world-wide demand for better housing and improved standards of living. Much of the discussion of Hitchcock's paper was concerned with trying to bridge the gap between the significance of those few unique structures of a century ago, in which the utility of the new materials was established and their potentiality indicated, and the significance of the multiple structures serving purposes like schools and housing, that have been our principal achievement in this field since the war. The change from one to the other is an illustration of the fact – to which several speakers as well as Hitchcock drew attention – that technical inventions are not developed until social and economic conditions permit of their exploitation. It is a matter of supply and demand, with cost conditioning both, and architects have a responsibility here, too. One of the British speakers (an engineer, as it happens) pointed out that, besides architects expressing views on what materials need developing, they need to discover more about the real relationship between materials and cost, which will influence their view as to what can be developed most effectively.

But Hitchcock, as an historian, was naturally more concerned with architects' attitudes to materials as the inspiration of their designs. He spoke, for example, of Frank Lloyd Wright and his intuitive response to materials, and he pointed out that with his 19th-century background Wright did not respond so readily to the nature of the materials we are concerned with today. Our problem is just the opposite. We may admire intuition of the Wrightian kind, but it is based on a sense of materials immediately experienced, and this is difficult to reconcile with scientific calculation and the long-term process of research, team work and development. Professor Hitchcock also pointed out that there are not yet any standards by which we can assess modern materials, and in the discussion on his paper there was a certain amount of criticism of the over-exuberant use of new materials for novelty's sake. One speaker – appropriately from Greece – deplored the constant search for originality, and a Dutch speaker accused young architects of regarding buildings as though they were sculpture, ignoring their human purpose.

A Spanish comment on Hitchcock's paper points to another aspect of the dilemma arising from the different attitude to materials that the application of scientific techniques has brought about. He pointed to the contrast between the increasingly elaborate methods that are being invented to create an agreeable surface when using reinforced concrete – textured shuttering, exposed aggregates and a whole series of complicated treatments – and the need for the simple, direct use of the material that is inherent in its very nature and is one of its chief economic justifications. In this respect reinforced concrete, several speakers seemed to feel, is trying to exist in two worlds at once. Should the ultimate essence of a material, they asked, depend on such incidental phenomena as the treatment of the formwork? Is a highly craftsman-like care over surface detail in each operation compatible with the effective exploitation of its plasticity and its susceptibility to repetition and off-site fabrication? An example of this contradiction is to be found in Professor Nervi's own paper on the subject of reinforced concrete. Discussing this very question of agreeable surfaces, he recommends sand-blasting but warns that a careless workman, in a moment of inattention, can do the surface irreparable harm. He is thus demanding a craftsman's skill and sense of personal responsibility, during a building process that is supposed to be moving away from the age of individual craftsmen to that of the mechanically predictable result.

A Colombian comment on Nervi's paper insists that concrete, though in a sense the key contemporary material, is still seeking its individual form of expression, and that investigations should primarily be directed towards seeking the natural language of the material so as to increase its building potentialities.

In the course of his paper Nervi himself reflects on the relation between cause and effect and speaks of 'the radical transformation of the vocabulary of architecture under the pressure of technical and economic factors'. No one can fail to be aware of this transformation, but the comment must also be made – and is implied by many of the discussions I have listened to – that although technical advances are to some extent the cause of architectural change, they are equally the result of architectural demand. The social and economic pressures which architecture reflects themselves shape the direction in which technology develops.

Nervi, whose absence from the Congress we all regretted, gave us a most fascinating account of the interaction, in his own buildings, of technical invention and formal intention. In the discussions on his paper since tributes were paid to his achievements as a builder, but many speakers found themselves unable to accept his architectural philosophy, especially his vision of an idealised form crystallised, as it were, out of the truth to be found in the permanent laws of physics. The feeling was that Nervi's buildings were outstanding not because they conformed to some immutable law but because they were by Nervi, who combines the sensitivity of the artist with the skill of the constructor. His work is unique and theories should not be based on it. The publicity given to it, Professor Candela remarked, tempted architects to embark on irrelevantly ambitious structures; and several others pointed out that both Candela, whose concrete structures are also so much admired, and Nervi, have the significant fact in common that they are builders as well as designers.

In the latter part of his paper Nervi pronounced his belief in the prefabrication of concrete as, to use his own words, 'the building process richest in structural and architectural possibilities'. He discussed the pros and cons of prefabricating load-bearing units and of sub-dividing a building into relatively small sections which can be prefabricated and then joined to form a structural and architectural unity – a method exemplified, of course, in his own vaulted roofs. He insists that this process requires not only a designer with a complete mastery of building technique but a building organisation with experience of the process used, including the office technician and the workman on the site. This reinforces the point I have already made about co-operation between architecture and industry and brings us again – as, indeed, does Nervi's optimistic view of the possibilities of prefabrication – back to the subject of Hryniewiecki's paper. For new techniques are one thing, but their intelligent industrialisation, so as to make them economically viable and socially beneficial, is quite another.

Hryniewiecki emphasised the advantages of industrialisation as a means – perhaps the only possible means – of coping with the growing needs of world population. It is not so much a way of doing the old things in new ways as of making

a better environment for more people. It can make the advantages of good architecture more freely available. Hryniewiecki disclosed that Nervi himself, whom we associate with unique monumental structures, has declared himself anxious to work on mass-produced housing if he could be given a chance to apply new materials and techniques to it. Among many other interesting points Hryniewiecki brought out were that some of the most promising prefabrication systems involved the erection of temporary component factories on the building site, that the nature of prefabrication raises the question of permanence and obsolescence in buildings (a question to which the Congress discussions did not give so much attention as I thought they might have), the need for transport and building plant (such as cranes) to be mechanised as part of the process of mechanising building construction, and the hopeful thought that industrialised production, by saving waste and labour, allows a wider use of high quality materials, luxury materials being normally luxurious because of the skilled labour that has to be expended on them. Hryniewiecki was, I suspect, being deliberately provocative in insisting on the mechanical, as distinct from the humanistic, future of architecture, and the Congress reacted exactly as he must have known they would, judging by the applause that greeted the many warnings that were given against the loss of humanity that might result. This is, of course, a loss we must guard against, if we mean that architecture must serve human needs and respect human values and not become subservient to purely material ideas of progress. Technical progress, in the words of a speaker from Holland, is not synonymous with architectural development.

On the other hand, it is easy to see danger where it is only change that is threatened – and change we must be willing to face, and judge the result on its merits. Several speakers, for example, showed some inflexibility of mind in some of their objections to standardisation. There was more than one who drew attention to the monotony of 19th-century urban housing, which created, they said, a yearning to escape from the identical brick box. But surely in this case it was their lives that were monotonous, not simply their houses, and more satisfactory lives with more opportunities for self-expression were the proper answer. The life lived in the house, and the social life made possible by its relationship to other houses, are more important than outward appearances. The exterior of the house is not necessarily the right place for the assertion of individuality.

As Hryniewiecki reminded us during one of the discussions, the Georgian houses of London, Bath, Edinburgh and elsewhere are strictly standardised and widely admired, and the way they are used suggests that our defender against monotony is the town planner. For reasons of visual coherence as well as for reasons of cost and speed of production, house building must be subject to a large degree of repetition, the architect's demand being in the first place for components, capable of being made into buildings and groups of buildings, that satisfy architectural as well as economic standards, and in the second place for the support and co-operation of the town planner and landscape architect, whose task it is to create a positive and agreeable environment out of the standardised house unit – just as the architect himself, when designing other types of building, has the task of creating a structure with a positive character out of the standard unit of whatever size – from the brick to the multi-storey wall frame – is appropriate to the job.

While on this subject, however, I should just mention one comment that was made in discussion: that the avoidance of monotony by good layout requires the planning of larger areas of land at one time than many cities find possible today, as well as positive control over urban development generally.

Standardisation has many guises, and more than one speaker mentioned Japan as the meeting place of both traditional and modern kinds of standardisation. The discussion, however, was generally more concerned with the practical and economic consequences of industrialisation. Colombia made a plea for gradualism, because of the shortage of skilled labour and the consequent danger of unemployment. The United Arab Republic made a similar point, but it is of some interest that surprisingly little was made during the discussions of the different attitude to industrialisation that must naturally be taken in countries that are not highly developed industrially and have not the capital to invest in industrial plant.

East Germany emphasised that the economics of mass production required a steady output over a number of years, and must therefore be based on the 'classic solution' to any given architectural problem, not on changing fashions, and Britain stressed the importance of co-ordinating dimensions and long-term programming, and pointed out that the advantages of the industrial production of large components might be nullified by the high cost of factory space and of tooling. Britain and several other countries also drew attention to the severe limitations of whole-house prefabrication when it came to the consideration of good site layout.

Perhaps I may suitably add at this point that prefabrication and its possibilities clearly hold great interest for the younger generation, judging from the students' designs for a mobile theatre in the Congress exhibition building on the South Bank. I found these lively and imaginative. Most of them show a clear grasp of the essential character of the demountable structure, and there was one, from a Spanish student, that combined practicality and originality at a very high level indeed.

It emerged from our discussions that two different responses may be made to the threat which building with factory-made components undoubtedly makes to the architect's freedom of design. One is to insist that the architect should come in at an earlier stage and become in effect an industrial designer, assuming some responsibility for the components he is later to use. This accords with a view expressed in a Spanish comment: that the architect can make his contribution in two separate stages, the creation of standards and the assembly of components.

The other response that may be made is to accept that architects cannot claim responsibility for everything, that they are essentially co-ordinators, and that the new industrially produced materials they have to work with, good and bad, are part of the condition their work imposes on them, and provide the sort of challenge that a live architecture has always been willing to face. Perhaps the right answer is somewhere in between: the challenge must be accepted, but the architect, even if he should not claim the right to design all building components, can influence their design by himself creating the demand they exist to satisfy. A French comment put it in another way in declaring that industrialisation should have no effect on architecture other than that desired by the architect.

This question of the proper role of the architect is in fact central to all the discussions during the Congress, and even those who felt cautious about accepting some of the implications of industrialisation that had been put forward agreed that the architect must be prepared to look at his position anew, both from the point of view of the architectural programme and the design process and from the point of view of his relations with other experts and the need for more co-operation with them. He must also look anew at his own methods of training.

Industrialisation means specialisation, which would result in nothing but confusion if there were not someone capable of taking a total view of technology in terms of architecture. While we must guard against technical advance being regarded as a virtue in itself, so that we forget to distinguish between the advantages and disadvantages it brings, and thus become its slaves, not its masters, while we make sure that it is we

architects who are using techniques, not the techniques that are using us, we must likewise remember that architecture only moves forward by accepting the challenge of new techniques, and that although exploiting the new does not necessarily mean discarding all the old, much of architecture's vitality depends on its ready response to what its own age offers it.

We have ranged over a wide area, and I think it may be useful if, at the risk of over-simplifying, I now try to isolate one or two of our main arguments and conclusions. We all seemed to agree as to the need for the maximum exploitation of industrialisation, and of prefabrication techniques, especially for housing. In fact, it was thought to be the only way of solving the housing problem of the world's growing population. There was a general feeling, however, against the mass production of whole buildings, if only because of variations in local conditions – which called for equally varied solutions – and the difficulty of adapting standard buildings to different sites.

Building components everyone was prepared to standardise, as long as it was done in a way flexible enough not to inhibit the architect. As much variety should still be possible, it was thought, as in traditional building. There was a great deal of argument about the right size of the component. Many thought small components better than large, as not only being more flexible, and therefore less liable to restrict the architect's freedom, but as being easier to transport. Some countries – notably in Eastern Europe – reported, however, on work that was going forward on heavy structural components, most such experiments being dependent on site organisation and devices like mobile factories and cranes. The idea was also put forward that in countries like Mexico, where development areas were scattered, simple concrete components should be evolved that could be moulded on the site.

Some alarm was expressed at the possible internationalisation of architecture as a result of large-scale industrialisation, and standard solutions clearly should not be imposed irrespective of climate, ways of life or social usage. Hryniewiecki insisted that, although prefabrication is an international science, it does not follow that the results of employing it have to be international.

Finally, even more alarm was expressed at the prospect of architecture losing its humanity. Again and again we listened to speakers warning us against the inhumanity that would threaten architecture if it submitted itself too passively to the process of industrialisation. This danger is in all our minds – which is perhaps the best safeguard against it happening. But in any case I do not think we need look so pessimistically to the future as some of the expressions of alarm suggest, because there is another way of regarding industrialisation, which I am sure was at the back of many people's minds during the discussions, even if it was never put into words. I would like to try, Mr President, to put it into words on their behalf. Of course the sense of humanity must not be lost. But this is the point: industrialised building, and even the most highly mechanised techniques, are also a creation of the human spirit: the machines that make such methods of building possible are devised by men with the far-sighted imagination that is unique to the human spirit. It is simply a different manifestation of it from our own, and I do not think that architecture in the form that we know it at this moment has any exclusive claim to represent the human spirit.

We must remain masters of the machine, but, when we express fears that the machine will master us, do we really mean this literally, or do we simply fear that it will make our present architectural stock-in-trade irrelevant, and cause us the trouble of thinking out our ideas afresh? Architecture represents the human spirit essentially because its purposes are human, and if it loses its sense of purpose – if, for example, it becomes more concerned with flattering the self-esteem or sustaining the complacency of the architect – then it is in danger of losing its humanity, even while it preserves the outward forms of a humanistic culture. Surely the only thing that matters is that, while we welcome mechanisation, because of all the benefits it can distribute, we must be in a position, even if it means re-educating ourselves, to preserve the values that are permanent for good architecture.

What must not be hampered is the architectural imagination, but the imagination can work on whatever raw materials are put at its disposal, and the new materials and techniques can provide the sort of challenge to the imagination on which architecture has thrived throughout history.

I must now come to an end, and I would like to do so with one further personal observation. It is surely an encouraging sign that this Congress has not spent too much time in the discussion simply of aesthetics. A generation ago, even given the same theme, aesthetics would have been the subject of all the argument. Aesthetics are important if only because artistic excellence is one of the things for which every good architect strives. It expresses our own aspirations and, we believe, the sub-conscious aspirations of everyone, and it furnishes the criteria by which posterity will decide whether to value or deride what our generation builds. But we have learnt that aesthetic intention can achieve nothing if separated from architecture's human and economic programme, and one reason why I think we can take encouragement from our Congress discussions is that we have been humble enough to concentrate less on how to produce great architecture than on how to create the conditions in which great architecture becomes possible.

Sir William Holford (President of the Congress) said that those who had participated in the discussions may have thought that their comments sounded rather better from Mr Richards than when they were originally made. Others may have regretted that their own contributions could not be found a place in what was obviously a very great condensation of the wealth of discussion that took place in the last three or four days. But he was sure that they would all agree that this was one of the most brilliant summaries of the work of a Congress they had yet heard.

'My own very simple moral which I draw from what he has said – a condensation of his condensation – is simply this, that the Congress has in fact fired off an enormous number of challenges to the future work of the architect. We are in fact being asked now to be designers twice over: to be designers in the first place for the machine, so that the mechanical things that are produced are themselves a product of design, and secondly to co-ordinate design in such a way as to keep the social and even sometimes the political purposes of building always in the forefront. This is the kind of design which I, as a person most interested in town planning, feel is perhaps a subject for a further Congress one day.'

The great thing about Mr Richards' summary, said the President, was that it was not a final one. It was really a brilliantly co-ordinated review of some of the main arguments that had been put forward, and it left them with so much to discuss that it could not be said that the Congress had been concluded. I hope that you will join with me in giving him a very warm vote of thanks for the job he has done, and coupled with it the names of the speakers, chairmen and secretaries of the three working groups which have provided the material to our brilliant Rapporteur-General.

The vote of thanks was carried by acclamation.

Sir William then called upon Mr Richards to state, on behalf of the Congress Co-ordinating Committee, the resolutions which had been put forward – those to go before the permanent working commissions of the IUA and those on which the Congress as a whole seemed to have been agreed.

Mr J. M. Richards then read the following statement:

The Statement

I am asked by the Co-ordinating Committee to say that the Committee has agreed that the following basic issues, brought up during the Congress, need to be followed up and will be put before the permanent working commissions of the IUA:

1. The difficulty of international communication owing to the inexact definition of terms.
2. The need for architectural education to be looked at afresh in relation to the industrialisation of building.
3. The need to study means of closer co-operation between architects, the building industry and related professions.
4. The need to investigate the results of existing technical developments especially from the users' point of view.

The Co-ordinating Committee asks me finally to put before the Congress the following conclusions on which the Congress as a whole seems to be agreed:

1. That industrialisation and new technical developments have a major part to play in the future of architecture, especially in solving the housing problems of the world's growing population and its improving standards of living, and that architects must be prepared to adapt their methods of work to this fact.

2. That although new techniques and materials can do much to open up new possibilities for architecture, research is needed to ensure that their use is related to the needs of different countries and climates, and specially takes note of the differences between countries highly developed industrially and those less developed.

3. However fully architecture accepts new techniques and materials it must be in order that architectural ends shall be served. Man must remain master of the machine. The exploitation of industrialised building processes must begin by studying the social and human needs that buildings have to serve.

4. That industrialisation is not an isolated technical process, and that acceptance of a trend towards more industrialisation means that the architect must work in closer co-operation with builders, industrialists, town-planners and others. He is, however, the one member of the building team with a view of the whole problem and he must select and synthesise the activities of others so that the ultimate end is kept always in view.

The statement having been circulated, the President called for its formal approval. (*Agreed.*)

Arrangements for the Seventh Congress

The Secretary General of the IUA (M. Vago) announced that, in accordance with the decision taken at the Lisbon assembly two years ago, and unanimously confirmed by the assembly which preceded this Congress in London, the Seventh Congress of the IUA would be held in Cuba. Thereafter there would be a study tour to Mexico, and in this connection the assembly and executive committee would be meeting in Mexico.

The delegates of the Cuban section had asked him to convey their warm and friendly invitation to Cuba, where they would endeavour, if this were possible, to excel the efforts of the organisers of previous Congresses – because each Congress represented a major step forward, and they were convinced that the Seventh Congress, the first to be held on the other side of the Atlantic Ocean, would be a very great success. Their Mexican friends, too, were working in very close co-operation and collaboration with those in Cuba, and they could be sure that this would prove to be a magnificent demonstration of what could be achieved along the constructive path with the IUA was following.

The theme of the Seventh Congress was of exceptional importance and was chosen from seven possible themes by the Executive Committee, in agreement with the Cuban section. It would be devoted to the problems of architecture in countries now undergoing development and change. This was a very acute problem if one realised the nature and extent of the needs which must be satisfied very quickly, and with the least possible means available, within the spirit of true architecture which imbued them all. The growth of population in the world was such that it was necessary for 200 new cities of 50,000 inhabitants each to be built every year, and it was in these developing countries that the growth of population was particularly concentrated for the most part. This was an indication of the size of the problem and the importance of the theme. The Seventh Congress would be held, said the Secretary General, at the end of September 1963, and the events being prepared by the Mexican section would begin on the 4 October 1963.

Address by the President of the IUA

Senor Hector Mardones Restat briefly reviewed the earlier Congresses, and mentioned the developments that were being undertaken in the work of the organisation. He paid a special tribute to M. Vago, the Secretary General.

The work of the London Congress was by no means finished, since the Executive Committee was meeting in London to carry out the directives of the Congress.

The working committees, whose work M. Vago then dealt with, were the corner stone of the IUA. They carried out constantly their task of ensuring that contacts were maintained between the architects of the world. 'As a result of these many meetings', he said, 'we are little by little developing a philosophy and doctrine of architects.' This would be of great value to them in the future.

Referring to the many social gatherings held during the Congress, the President thanked the British section for giving visiting architects the opportunity to meet so many friends, and he hoped that the British section would, on behalf of all the visitors, thank the British authorities for the friendly and cordial reception they had been given.

Mexican Society of Architects – Presentation of Diplomas

Senor Carlos Contreras, the President of the Mexican delegation, presented diplomas of honorary membership of the Mexican Society of Architects to Sir William Holford, to Mr Arthur Ling, and to Dr Thomas Sharp, for their outstanding services to architecture.

American Institute of Architects – Honorary Fellowship

Mr Philip Will, President of the American Institute of Architects, presented a Certificate of Honorary Fellowship to Professor Robert H. Matthew.

He could not, he said, conceive of more generous hospitality than they had received in Britain. They would leave Britain with warmer feelings than ever towards their colleagues from all over the world, and regard themselves more than ever as world citizens.

IUA Competition for Students

After the formal ending of the Congress, students gathered in the exhibition building to hear the criticism of the designs for a mobile, demountable, theatre submitted by schools of architecture from all over the world.

Short preliminary talks were given by Mr Buckminster Fuller – the subject of assembly and disassembly was one that appealed to him; Snr Felix Candela, who found a number of the schemes very intelligent; Mr Ove Arup, who thought that while many of the designs were not practicable for immediate application, some contained excellent suggestions; and Professor Llewelyn Davies, who discerned three groups: those that showed a grasp of the technical problems; those which failed to understand them; and a third group which displayed skill and thought but fell down on one or more technical problems such as wind pressure.

During the IUA Congress Mr G. Molnar (Australia) filled a sketch book with caricatures, three of which are reproduced.

Above: Professor Henry-Russell Hitchcock, Professor Yang Ting-Pao and (*right*) Mr Ove Arup, Professor R. Llewelyn Davies, Mr R. Buckminster Fuller and (*small head in background*) Snr Felix Candela

He considered that the competition reflected the theme of the Congress, and warned the students that there was no short cut by which architecture could embrace technology other than via science, maths and clear thinking.

The panel of critics, which in addition to the four names already mentioned included Professor F. Fielden and Mr Michael Pattrick, divided into pairs and each dealt with a third of the exhibition in detail.

Presentation of the Royal Gold Medal and the RIBA London Architecture Bronze Medal

on 27 June at the RIBA. The President, Sir William Holford, ARA, in the Chair

The President: This is an unusual sessional meeting of the Institute as it brings together within the compass of one evening, first of all, the announcement of the results of the recent Council elections; and since only a quarter to a third of our members record their votes, it may perhaps call for what E. M. Forster satirised as 'Two cheers for democracy'.

Secondly, we have the award of the RIBA Distinction in Town Planning to three well-known architects. After that, we have the presentation of the London Architecture Bronze Medal, the 30th in its line, for a building of exceptional merit built during the last three years in the counties of London and Middlesex.

Finally, we shall have the presentation of the Royal Gold Medal for the promotion of Architecture. This is a Medal which was instituted by Queen Victoria in 1848 and approved, in this instance, by Her Majesty Queen Elizabeth II. That will be awarded to Mr Lewis Mumford and he is the 113th recipient.

I would like, before we begin on the formal part of the proceedings to welcome a number of guests of the Institute who are here tonight. Apart from Mr Lewis Mumford and his wife, we have Dr and Mrs Bronowski, the former of whom is going to speak. We have Sir Gerald and Lady Barry; we have Dr and Mrs Gleeson, the Cultural Attaché to the United States Embassy, Mr and Mrs Henry Churchill, members of the Executive of the International Union of Architects. We have by chance Dr W. C. Constable, of the Boston Museum of Fine Arts; Mr Vernon Demarr; and we have Mr Race Godfrey, former President of the Royal Institute of Australian Architects. Last, but not least, we have Mrs Grey Wornum who is here on a visit. I would like to say how pleased we are that we happened to be able to ask her to join us this evening.

The Secretary read the scrutineers' report.

The President: I have two duties to perform. One is to declare that the members of Council whose names have been read out have been duly elected; the second is to propose a very brief word of thanks to the scrutineers who examined the voting papers. They are a body of 24 members who do an exacting job and never complain, so I hope that you will not grudge them a brief vote of thanks for their labours.

Diplomas of Distinction in Town Planning

The President: We now come to the presentation of the Diplomas of Distinction in Town Planning. The first recipient is the late President of this Institute, Sir Basil Spence. I will read, first of all, a small part of the citation on the award. It says:

'This Award is made to Sir Basil Spence in recognition of his outstanding achievements in many fields of planning and civic design and, in particular, for the distinguished contributions he has recently made to the problem of university re-development and extension.'

There is more, but I will ask him to come forthwith to receive the Distinction.

The next award is made to Mr Eric Lyons. The award is made:

'in recognition of his unique and outstanding contribution to the problems of design inherent in the creation of a complete environment for people to live in.'

His skill as a designer was recognised when one of his flats was chosen to represent Great Britain in the Helsingbor Exhibition in Sweden in 1955. By now, so many of his flats, maisonettes and houses have been built that it is fitting that his skill in laying these out to create truly liveable environments should be recognised.

The third is to Percy Edwin Allan Johnson-Marshall and the award is made:

'In recognition of the unique position which he has established in the town planning field.'

During his Army days in India and Burma, he was planning in the sense that he was attempting to persuade the RIBA to engage in Commonwealth-wide schemes; and the enthusiasm he then demonstrated was carried out from the office at Coventry, where he was one of the happy team of dedicated men who planned the post-war reconstruction which has made Coventry more famous perhaps than its motor-cars. It is for his unbounded enthusiasm for spreading his ideas for urban renewal that he has been awarded the Distinction in Town Planning of the Royal Institute.

Mr Denys Lasdun

The London Architecture Bronze Medal 1960

The President: We now come to the presentation of the London Architecture Bronze Medal 1960 to Messrs Denys Lasdun and Partners: that is Mr Denys Lasdun and Mr Alexander Redhouse. It is for a block of luxury flats at 26 St James's Place. I would like to say from the Chair something very briefly about this building.

I was asked by some member of the press why I thought this was a good building. My answer was this: the architects had two difficult problems: how to design a modern block of flats next door to Spencer House, the traditional horizontal building, smaller in scale; and how to create a group of flats to sell or to let which would be conveniently planned, make the most of the superb outlook over the Green Park and, at the same time, retain their privacy. They have met those two problems with decision and elegance. There is no fumbling or uncertainty over their handling of it. Both architect and client have resisted the temptation to pile too much on to the site, and the building materials and finish are simple and yet appropriate.

Mr Denys Lasdun, MBE *[F]*: I am glad the building has, in a sense, spoken for itself. The fact that it exists is due to a number of people, including the client, who regarded themselves as part of a process out of which architecture comes, and it is my privilege this evening to thank some of them.

Beginning with the client, he was a man who understood the aims and functions of the architect, who was well aware of the importance of the site in a very beautiful part of London which he chose; and thereafter, all I can say is, he willed his building into being.

So far as the realisation of the building is concerned, this seems to me to touch on an arduous section of the architectural process. As I have already said, it involved a number of people of different skills and a million and one variations and adjustments. In all this, I want to pay tribute to our engineers, Ove Arup and Partners. We have always regarded them as part of us. Knowing engineers, I doubt if the situation works in reverse.

I also want to thank very much the general contractor. He has built this building extremely well and in a most cordial atmosphere. It was the second part that touched me as much as the first, and I would like to mention by name the site agent, Mr Smith, who was responsible for the actual organisation of the work. He keeps a pub when he is not building, which is probably why there was such a cordial atmosphere between him and the Clerk of the Works, Mr Haines, for whom I have nothing but praise.

I would like to mention two other architects, Lyall Addleson and Graham Lane. The measure of an architect seems to me to be also a measure of the people who do the work. When I pay tribute to their hard work I want it to be quite specific as to what I am thanking them for. I am thanking them for keeping a close correspondence between the formative idea of the building and its technical execution.

There has been another piece of correspondence a little in the realms of the miraculous, between what is optimistically described as the final estimate cost and what is sometimes sadly viewed as the final account. Here we have been well served by our quantity surveyors, Messrs Cyril Sweet.

I want to say one more thing. I have received some letters from colleagues. When you think how busy all architects are at the moment, I think it is a delightful gesture, but what has pleased me very much in a curious way is the manner in which some of the letters have been phrased, so that there could be no possibility, and rightly so, of sitting back with any sense of complacency. The letter I had in mind was written by a very eminent architect: 'Saw your building – liked it,' but of course he had had a very good lunch beforehand.

The President: According to our usual custom, I would like to present a replica of the Medal to Mr J. M. Beecham, Director of the Malvin Investment Company, the building owners.

Finally, I would like to present a Diploma to Mr D. B. Jarvis, Managing Director of J. Jarvis and Sons, the contractors for the building.

(*The President then left the hall and returned with Mr Lewis Mumford.*)

The President: The citation or conditions for the award of the Royal Gold Medal is perhaps a little quaint, but it is quite clear. It states that it is conferred on some distinguished architect or man of science or letters who has, among various qualifications that are listed, produced work tending to promote or facilitate the knowledge of architecture or the various branches of science connected therewith, or whose life work has promoted or facilitated the knowledge of architecture.

In the case of our present recipient, the single work could be *The City in History*, a study which he first intended to amplify and which has finally almost superseded his earlier book, *The Culture of Cities*. But, in fact, I think you will agree with me that his whole life has promoted or facilitated the knowledge of architecture and of more than one of the various branches of science which are connected therewith, not least the social sciences. It is fitting that, every now and then, a man should examine his conscience, and that a profession which professes a social art as well as a technology should turn from the business of running its machine and look back over the road it has travelled and the way it is going now. To me, and to many others, Lewis Mumford has been our architectural conscience over the past 30 years or more.

Urban growth, like world population, is a mounting phenomenon. It might so easily become almost a malignant growth, uncontrollable, and bearing little reference to the conceptions of home and community, of estate and town planning, which we have been taught and which we try to bring to realisation by our design and by management.

This is where we are grateful, as architects, as professional men, as town planners, as people interested in cities, to Lewis Mumford. We are grateful for his courage in saying things that are not immediately popular, and for his perception of where our urban culture is valuable and where it is not: most of all, for the hope which animates his writing, even when he condemns particular aspects of the growth of cities; and for his capacity to speak to ordinary citizens of what we as architects and town planners are able, but often fail, to design.

The President then called on Dr Bronowski to speak.

Dr J. Bronowski, MA, said he was here to speak for the large body of people whose education was transformed by Lewis Mumford's works, to whom the great books of the '30s, *Technics and Civilization* in 1934, *The Culture of Cities* in 1938, were a profound revision of all that had been thought about the relation of public buildings to private life.

He reminded the younger members of the audience that things were quite different before 1930; when, except for a few eccentrics, those who thought they had a taste for architecture appreciated only the architecture of the past. A great building was like a fossil, monumental in its history, but surviving into the modern age only to teach us how much better the past had been in all these things.

The most remarkable thing he, Dr Bronowski, learnt here as a boy was that the only good architect was a dead architect.

That interpretation of tradition was first undermined and eroded and ultimately brought to collapse by the work of pioneers, of whom Lewis Mumford was the educational leader. He brought home to my generation, said Dr Bronowski, the fact that a culture is not a set of history books, but a culture is a community of interest between living people. He brought home to us that history is not something that happened in the past but is something that is alive in us, that history flows through us and that in the last analysis, history is only worth what we do.

He brought home to us the fact that a culture is not a set of history books, particularly because he first brought into perspective in the field of the arts what Desmond Bernal was bringing home to us at about the same time in the field of the sciences, namely that technics now belong to our civilisation, that we are no longer the mandarin civilisation that lived only in books: that the natural expression of our age in buildings, in positive works, and to like what Frank Lloyd Wright, on the one hand, and the Bauhaus on the other, were doing, was not an eccentricity.

The future is not an abstract thing, and the future is not even a headlong eruption of impersonal changes and discoveries. The future is people. That was the great lesson that Mumford's book about cities taught.

'That is the note on which I want to end my tribute to Mumford's work: the vivid human sense which pervades all his writings about buildings.

'He created for us a sense that we must generate a society

for which its achievements, artistic and technical, have a human meaning, and we must form people who feel a sense of participation, of personal fulfilment, in the technical wonders of their time. Mumford did that for me and a great many people in this room and all over the world and for that pioneer effort, I pay him tribute this evening.'

Professor R. H. Matthew, CBE, ARSA [*F*]. Maybe, said Professor Matthew, as Mr Mumford came into this building tonight, he glanced at the left-hand wall in the vestibule. If he did, he would have noticed that our choice of Gold Medallists has been remarkably catholic. Some names, to him, no doubt, would have warmed his heart – Raymond Unwin, Patrick Abercrombie. Others might have recalled the most profound and serious assessments and criticisms he has been impelled to make of some of the leaders of architectural thought in the last 30 years.

He would have seen all this, but he might well have noticed, for he is a quick observer, something else – a name that is not on the wall – that of Patrick Geddes.

To his lasting regret, said Professor Matthew, although they both lived for a time in Edinburgh, he never met Geddes – a grievous sin of omission. To him, Lewis Mumford was the link with that great but odd personality—and more than that, now the only real link with a group of men, some of them architects, who felt deeply, not about themselves and their own problems, but about the fundamentals of human environment.

'During my lifetime,' said Professor Matthew, 'many other lights have flashed through the architectural sky, sometimes blinding in their brilliance – a shower of meteors whose effulgence is only now beginning to fade, and the young generation – I think everywhere in the world – finds the prospect obscured and uncertain.

'To these, Mumford does not throw a comforting beam – he would be the last, I think, to say so. His light is searching, probing, questioning: the questions asked cannot be answered by simple formulae. He is digging down, and digging deep, into the roots of society, to find the real forces that make our towns and cities, the great Metropolitan accretions, what they are; and he does not much like what he finds.

'To him, the city is not merely a physical structure – irrelevant, as Alastair Cook a few weeks ago in this room, would have had us believe, to the indifferent citizens – but a biologically determining factor – a factor indeed that may ultimately determine life or death.

'For this reason, he has been a fearless and constant critic, not only of city development as it occurred, but of the criteria by which it is judged – not least by architects themselves.

'We remember his long and detailed assessment of the basic assumptions underlying the County of London plan; a devastating criticism devoted to answering the question – does it make possible a biologically satisfying mode of existence? and he concluded, with all the weight of his experience, while admitting its many detailed qualities, that it did not.

'We remember his equally outspoken estimate of the United Nations Secretariat Building – a type of building, he said, that to distant peoples is a stock emblem of the things they fear and hate: the slick mechanisation, the awful power, the patronising attitude towards lesser breeds who have not acquired the American way of life.

'Shall we produce order or chaos? Spaciousness or congestion? Asethetic delight or depression? Townscapes and landscapes designed for living or cells and prison blocks for automata? These are his words – these are the questions he has asked with increasing power throughout his life.

'He has studied, as no man has before, the growth of cities and their relation to the great regions they serve. Geddes had an intuitive grasp, but *Cities in Evolution* is no more than an inspiring preface to his work. *Technics and Civilization*, *The Culture of Cities* and *Cities in History* recently out of the press, have no parallel in the diagnosis of the relation between man and his physical environment.

The President congratulating Mr Mumford

'It is sometimes said that Mumford is a prophet of Doom. I do not find, reading the concluding chapters of his last book that he has in any way departed from his invariable rule: to state and interpret the facts with clarity and integrity. Indeed, in the midst of undeniable urban disintegration, he sees the possibility of new patterns of life emerging.

'The tendrils of what he calls the *Invisible City*, distributing power on the one hand, education on the other, may even now be providing the means for new urban constellations, if we wish to use them. Far from claiming the powers of the prophet, he writes, near the end of the book – "Life has no predictable attitude", and life it is with which he is always concerned.

'He has seen what he has seen with the synoptic eye; while he can say with memorable phrase – "the swish and crackle of paper is the underlying sound of the Metropolis", he can also say with equal conviction – "at the last moment" (and I think he will tell you tonight we are at a parting of the ways), "we will wake up to take control over the forces that are splitting our social life apart".

'Lewis Mumford is not only a great writer and critic. He is also a great teacher, for he lives as he writes. Among groups of students he talks quietly, informally, expounding no dogma, but drawing on his immense knowledge, quick to appreciate quality in others.

'He gives no one-sided picture: the gentle art of overcrowding – the exchange of slum for slum, is in the balance along with fresh meadows and Sunnyside Gardens; the thought behind town planning ordinances weighs heavily, but Lever House and the Manufacturers Trust Company's offices are to him crystal lanterns in the urban twilight. He does not let us forget the trees of Bermondsey, children playing in the market square in Lansbury, the gardens of Ladbrook Grove. He appeals for fresh assessments and throws a challenge: architects must find forms which have the necessary mechanical perquisites – he is no opponent of mechanisation, but it must be under control – which will do justice to the human personality, and not only to one type of personality, but to the great variety of human nature.

'The opportunities for the architect in the world today he sees more clearly than most. From his inspired diagnosis of buildings over a lifetime, I think he could have been a great architect, if he had so chosen; for that reason he does not hesitate to confront us with a sense of what this may mean in human terms, and to continue the challenge unabated. I hope we can take it. We have sometimes worshipped, architecturally, some strange gods during the past decades, and perhaps have not fully understood the consequences.

'Let us hope, Mr President, for the good of us all – and that does not mean architects only – that those who come to this building hereafter and read the name of Lewis Mumford on the wall, will understand something of what that name means.

'Patrick Geddes, in the chapter in *Cities in Evolution* called the Spirit of Cities, writes – "No one will now" (1914) "admit himself a mere procrustean engineer of parallelograms, a mere draughtsman of perspectives; but long and arduous toil and quest are still before us, ere we can really express, as did the builders of old, the spirit of our cities." He goes on to say, referring to his own work, "We are still in the day of small things". Since then, we have had the impact of the whole range of Mumford's work and teaching.

'The long and arduous toil and quest has been undertaken and still goes on, for he is still in full flood, and in this field of human understanding the task can never be finished. The day of small things has developed into a life of unique achievement, for which we gladly pay tribute tonight.'

(*The President then invested Mr Mumford with the Medal.*)

ADDRESS BY MR LEWIS MUMFORD

The honour you have accorded me ranks as the highest that can be given to an architect whose work has justly earned world-wide acclaim. And when you give it to a writer, for his essays and books alone, the recipient himself has the giddy sense of being rocketed upward from the solid base of architecture and becoming, by this very release from your usual canons of judgement, a detached and all-too-lonely creature – almost a Man in Space – exalted perhaps by his mission, but not at all sure that he should have been picked out for such a venture.

The fact that this is the first time such a special honour has been bestowed upon a writer only makes the award that much more royally magnificent, and, for the same reason, that much more embarrassing. Yet it is with no sense of false humility, and I trust with no untoward lack of respect for your past judgements and selections, that I now beg you to let me share this honour with my great British predecessors and masters: John Ruskin, William Morris, William Richard Lethaby, and Patrick Geddes – the men whose thought and vision made my own work in this field possible. Supported by their colossal shades, magnified as these figures now are by the judgement of time, I should feel less lonely; and would be free to savour, with uninhibited gratitude, my still generous fifth portion of the honour you have bestowed on me, and through me, on us all.

Do not fancy that my own spontaneous reaction to this evidence of your approval is any less vivid at 65 than it would have been at 25. Every fibre in me is ready to yield to the moment and to bask in its sudden glory, as when at the end of an arduous swim, after breasting counter-currents and being thrown about by the cold breakers, one reaches a friendly beach and sinks gratefully into the sunwarmed sand. All this I feel today, and am thankful I have lived to experience it. But I would be untrue to the work you have honoured, if I did not confess to you that my personal happiness, today and every day, is undermined by the well-founded anxieties and the rational forebodings I share with all other reasonably alert men and women of my generation. We have not lived through half a century of violence, irrational destructiveness and wholesale collective extermination without knowing that, if the nations continue on their present course, still more infamous calamities may at any moment envelop the whole

L to R: Mrs Mumford with Lady Holford: Mrs and Mr Gibberd and Mrs and Professor Robert Matthew

planet. These memories, and still more these dreadful anticipations, corrode our natural delights even as they insidiously sap our creative energies.

For who can go about his work from day to day, calmly and confidently, whilst decisions about the ultimate fate of mankind are being made in privacy and secrecy by fallible, indeed demonstrably error-prone, leaders – leaders heavily insulated against public examination, public criticism, public guidance and control? Who can trust decisions made by men who have patently become the passive instruments of the implacable mechanisms and the lethal energies that science has placed in their hands? Were we living in ordinary times, I would not mar the present hour by even a passing allusion to either the world's danger or my personal concerns. But for both good and evil these are not ordinary times, since nuclear energy gives a cosmic dimension to all man's errors, sins, and psychoses. Even this brief reference to the state of the world must seem, I realise, to many here in this audience, an unseemly intrusion, extraneous to architecture, and at best, considering the occasion, a breach of taste. I must risk that natural criticism, even if my conscience impels me to defy it. What I feel called upon to remind you now is simply that no part of our daily life, no family expectations, no professional plans, no long-term hopes and creative prospects for our country or for the world at large, has any likelihood of coming to its natural fruition unless we master the forces that now so grievously threaten us. The ultimate madness of our moon-mad age would be to assume that all its current exhibitions of madness are entirely normal and inevitable.

Pardon, then, this affront to a convention I am usually happy to respect. I commit it only because our conventional daily behaviour seems to me as frivolously inappropriate to the situation we confront as would be the conduct of the passengers and the crew on a disabled ship, who should continue to polish the brightwork, caulk the lifeboats, play shuffleboard and bridge, and place bets on dummy horses in the usual shipboard manner – though they would instantly know, if they dared lift their eyes, that a hurricane was fuming across their path, and that the captains of all the national vessels, disregarding the storm warnings, are blindly steering, by out-of-date charts and wild compasses, for a non-existent destination. My figure is, I hasten to add, a faulty one: for the approaching storm, far from being an unavoidable natural event, has actually been conjured up by the captains and shipowners themselves, using their now gigantic and even godlike powers for meanly stunted human purposes. The moral, for all that, remains the same. At such a perilous juncture as this only one act is rational, only one command possible: All hands save ship!

The world is still waiting for leaders alert enough to utter that command and take hold while the ships can still be salvaged and brought to port. Such leaders would be wise enough to know that they cannot hope to solve unilaterally, in the interests of their own country, their own hemisphere, their own race or ideology or religion, problems that transcend, in their immensity and their gravity, all such parochial boundaries, and such childishly irrelevant interests. They would put aside the brazen trumpet of power and speak in a low human voice, without foolish pride, frantic boasts, or poisonous suspicions, in a mood of disarming self-criticism and candid repentance, with many pauses to listen patiently to all those they were addressing. They would bring to the occasion those qualities of imaginative understanding, humour, and fellow-feeling that are necessary to awaken similar responses in other men. Even one such leader, arising at the right moment, might precipitate the needed change, as a single crystal dropped into a super-saturate solution will induce a general crystallisation.

Plainly we cannot predict when such a moment may occur and such a leader may appear; and we cannot, by a mere act of will, evoke either the leader or the occasion: still less can we train and tailor such a leader in advance, as our space-oriented experts select candidates capable of heroically enduring the ordeal of their vacuous voyages. But each of us, individually, can at least sensitise himself and fortify himself for the occasion; each of us can challenge the irrationalities and automatisms he has learned to submit to in his own field; and each of us can assist in bringing about, within his own province, be it science or education or architecture, the kind of transformation that will restore human control, and reinstate human goals, to every part of the process. Unless we so ready ourselves, unless we so reconstitute our minds, our purposes, our daily activities, there is little likelihood that we shall be capable of responding effectively to the opportune moment when it comes, and when, by a super-human collective effort, we may halt and reverse the destructive forces that are now almost everywhere at work.

Admittedly, I am canvassing the possibility of a miracle. For if the world is finally to be saved from the nuclear holocaust that the great powers have been so assiduously preparing for each other, it will in all probability only be through such a general miracle of regeneration as you in Britain experienced after Dunkirk. And as *you* have special reason to know, even when the leader appears and the life-saving efforts have been set in motion, such miracles still require painful efforts and severe sacrifices; and what is more, they demand even greater displays of dogged patience, in the face of colossal difficulties, than more ordinary human events demand.

We shall not, alas, undo in a day, or even perhaps in a century, the errors of the last 20 years. But for the next few minutes, I am going to make the bold assumption that this miracle will actually take place; for, if I may repeat a remark I made towards the end of *The City in History*, the only safe generalisation about life is that it is full of surprises. Happily, as Gilbert Chesterton put it, in my favourite fantasy of his, *The Napoleon of Notting Hill*, mankind remains quietly addicted to its old game of Cheat the Prophet. Like any competent diagnostician, I always wince a little, I confess, when people bestow the title of prophet on me, usually in an unkind effort to give me a quaint, outmoded, Old Testament look. But I shrink even more from being called a Jeremiah - he whose prophecies so fatally came true. If I were a prophet, I should want to be a false one, and I would be thankful rather than chagrined if mankind would only be good enough to cheat me.

Now the miracle I am counting on provisionally is not, I regret to say, quite so unconditionally bright as it may seem. Conceivably our governments may hurtle from crisis to crisis without actually committing national suicide or physically mutilating the human race. Yet if we go on operating automatically in every other field on the same premises, pursuing exclusively our present goals of ceaseless technological expansion, with no reference to other human ends, the final results in another hundred years may not be singularly different from that which would be produced by a single gigantic catastrophe. For in magnifying the functions of machines we have increasingly belittled the purposes of men; and as our scientific artifacts become more exquisitely refined, what is left of the human soul, the detached, efficient, but increasingly unbalanced specialised intelligence, tends to dispossess and effectually dehumanise the rest of life. Already one of our American space scientists has, in a classic phrase, defined the new status of man: for him a human being is simply the cheapest mass-produced servo-mechanism as yet available for operating an otherwise completely automatic machine. Samuel Butler's wry jest, now a century old, that man might soon be reduced to serving as a machine's reproductive contrivance for giving birth to another machine, daily comes closer to our working realities.

I raise this problem on the present occasion for a special reason: it greatly concerns the arts of architecture and town planning and regional design; and the answers we make here will either help or mar our efforts to cope with all the insensate and so far unguided energies of our age. We can no longer

hope that the automatic machine, harnessed to equally automatic organisations, will if left to themselves deliver us from the disabilities of automatism, or that an expanding economy will provide adequate reparation and reward for a constantly contracting mode of life.

A century ago it was natural for progressive minds to think that technics and science alone were the appointed repositories of all the rational forces in society: at that juncture even those who were at opposite political poles, like Herbert Spencer and Karl Marx, were agreed. In architecture, the Great Exhibition of 1851, housed in that technological marvel, the Crystal Palace, was an admirable expression of this faith and hope. Many modern architects still cling to this original Victorian ideology: they conceive that the chief duty of man in the present age is further to hasten his mechanical conquests, and to bring ever wider realms of existence under purely external mechanical control. One such European architect has even expressed his utter contempt for the organic by planting lumps of coloured glass instead of living plants in a garden – thus going beyond the example of certain New York architects whose washable plastic foliage and flowers still imitate nature. But would not an unbroken concrete surface patterned after Mondrian, with not even a crack where some stray seed might lodge, be an even more expressive form of a truly modern garden? We are fast approaching the stage at which that question will not even be funny!

This innocent Victorian attitude was once clearly justified by the need to break through decayed ideologies and moribund traditions, in order to clear the ground for receiving those fresh manifestations of life that science and technics then supremely embodied. But today this bias is absurdly old-fashioned: for it takes no account of the disastrous results already visible, of following this new creed to its conclusion: and it has not yet accepted the radically different premises now needed to control the pathologically compulsive dynamism of our age. Our culture today is surely not restricted in its growth by an undue respect for old ways, static traditions, dead historic forms. Just the contrary, our capacities for orderly human development are menaced rather by meaningless change, by directionless quantitative expansion without qualitative assimilation, by a serious lack of organic continuity, by our addiction to a moment-to-moment continuum that neither remembers the past, selects from the present, nor anticipates the future; in short, by submission to purely mechanical demands that bring no sufficient human fulfilment.

Ours has become the civilisation of the disposable container; and our buildings more and more embody its peculiar characteristics. In many quarters architecture has become packaging: it is designed primarily to attract attention, like advertisements, and to promote sale or establish prestige.

Every year the external shell of our existence becomes more complex, more mechanically refined, more monumental in scale and often, in an abstract architectural sense, more elegant: but the human content becomes more empty, and the human purpose more incidental. This condition has been perfectly mirrored in those sterile bureaucratic images of the City of the Future that have prophetically dominated architecture for the last half century. By practical compulsion, if not by avowed demand, the inhabitants of the great high-rise structures that are now marching across the landscape must be trimmed and altered to fit the architectural design. Le Corbusier, indeed, has openly proclaimed the necessity for altering human dispositions to fit his architectural idiosyncracies, in his defence of the absurd constrictions imposed by his Unity House in Marseilles; and Mies van der Rohe makes such peremptory demands without even bothering to defend them. So far from the architectural form's being fashioned to serve and delight the user, the house-dweller is selected, as an astronaut is selected for a space capsule, so as to conform closely both physically and psychologically, to formalistic aesthetic conditions and flatulent – but equally rigid – financial calculations: the sole factors that, by seemingly pre-ordained harmony, govern the whole design.

In town planning, as in architecture, this same sterilisation and dehumanisation has already gone far. In many American metropolises, notoriously, of course, Los Angeles and Detroit, the planners have already effectually destroyed the city in order to give pre-eminence to a purely subsidiary service, that of the private motor-car; and during the last ten years, the same misplaced enthusiasm for mono-transportation, despite its inefficiency in mass urban movement and its wasteful demands on urban space, has gone on all over Britain and Europe: so that even the best planned cities on the continent, like Amsterdam and Paris, have forfeited their most precious urban space to these over-prolific mechanisms. The difficulty in repairing this situation springs from the fact that our contemporaries have already, in their hearts, accepted the supremacy of the machine, and the uncontrollable automatism of mechanical progress; and they have meekly resigned themselves to the passive secondary or tertiary role that is now allotted to them.

Almost a generation ago, in *Technics and Civilization*, I called attention to the new threat to man's development arising from the very success of modern technics in displacing human norms and human purposes: namely that the repressed aspects of life were already coming back in irrational forms, in mass tortures and criminal delinquencies of every kind. Thus our once valuable preoccupation with measurable and externally controllable physical phenomena, to the exclusion of all other aspects of life, was producing a revengeful, all-too-human irrationality, bent on asserting in negative forms, the missing autonomous human components. The whole man is in fact the chief enemy of those who still favour the indefinite quantitative expansion of scientific knowledge and technological power; for one of the first things that the whole man would do would be to set limits to this random expansion and restore a more complex ecological and social pattern which includes organic and human capabilities not adequately represented by any purely physical system or served by any power-oriented technology.

Unhappily the influence of the whole man is still far to seek: dismemberment is more fashionable. But what in fact is the meaning of so much that has been going on in the world of art during the last generation, with its symbolic representation of the primitive, the childish, the spontaneous, the inchoate and the unformed, the proto-human, except that it is a declaration that it is better to go back to the very beginning of man's development, and thus restore his original freedom, than to push on to the end of his present practices and commitments, and altogether forfeit his humanity? From this standpoint, Le Corbusier's church at Ronchamp, however deliberately naïve the elements in its composition, is a happy symbol of his own awakening – and ours – to the sterility of the images he himself did so much to make fashionable.

The moral of all these blind, desperate reactions is that life may not be denied. One must render to the machine only what belongs to the machine, and render to man all that belongs to man, or that, under an even more deep-seated cosmic impetus, transcends his biological limitations and his social necessities. This is no easy counsel, for in a disintegrating society wilful destruction serves as a sort of negative creation. As a result, it is precisely those valiant spirits who should now be creating forms more fully expressive of the emergent potentialities of our life, who are constantly tempted to use uncritically the vast destructive forces at their command in the vain hope that they may, through this acceptance, turn them to more human ends. Consider even such a robust and self-confident personality as the late Frank Lloyd Wright, he who placed the individual family dwelling and the garden at the very centre of his architectural opus; and who was content, so long as each family had its acre of land, to let the city dissolve into a formless house-

pocked landscape. Even Wright, at the end of his life, busied himself with an empty technological stunt, a Skyscraper a Mile High: a form both anti-urban and anti-human, devoid of either practical value or aesthetic significance. Thus the last testament of this great prophet of organic architecture was an anti-organic form conceived without any reference to its human functions and purposes. Nothing could better indicate the formidable social inertia that the human spirit must now overcome.

Those who would like flatly to reject my present observations will make their task easier if they misinterpret my position as an attack on modern science, or treat it as an attempt to point the way back to a backward handicraft technology. But in doing that silly injustice to me they would do an even greater injustice to themselves. There is no instrument of technics, however complex and elaborate, from a completely automated factory to a world-wide telephone or television network that modern man should not be ready to welcome when it is under constant human control and operated strictly for human ends. By the same token, the most simple ancient tool or machine has always been a menace to human development when it has been used by those who sought to restrict the meaning and purpose of existence to enlarging the province of building or mining or weaving, without respect to the end-products, the worker himself and the community of which he is a part. Our present plight comes, not from technics itself, but from those who have turned the increase of scientific knowledge and technical facility into absolutes, to whose pursuit all other human interests and desires must be subordinated, or even sacrificed. These minds have turned every new permission into a grim compulsion. Instead of multiplying our choices they have reduced them to those that would increase power, speed, quantity, automatism, external control – all of which are potentially good only when they are at the service of life. Every day this exploding universe of technics moves farther away from the human centre where it originated; and every day the human figure shrinks to less than life-size – and goes on shrinking. Who dares to call this system and this prospect a final one?

In giving you these brief glimpses of my thoughts today I have begun something I could not hope even to outline, much less finish, in my allotted time. In a sense, my whole work may be considered an elaborate preface to what I have been saying in ABC form today. But those who understand my philosophy best will know that it can never be fully expressed in symbols and rational concepts alone, but must be felt, imagined, projected, dramatically enacted, and above all lived and experienced over the years.

And where does all this leave the architect? Why, in the central position he has always occupied – as the mediator between natural conditions, mechanical necessities, and social purposes; as the continuator and integrator of a long meaningful human tradition that goes back, perhaps, to the Palaeolithic caves. The task for the architect today is not simply to translate into buildings the demands made by the machine and the mechanical collective, nor yet to confine human purposes to the conditions that they automatically impose. For the coming generation a far more difficult and challenging problem presents itself: that of uniting mechanisms, organisms, societies, and personalities into new architectural and civic structures – structures of a higher order – that will embody as never before the attributes of life, and symbolically give form to its still inchoate and emerging potentialities. That forthcoming architecture will achieve rationality without dessication, vitality without disorder, personality without flagrant caprice. So have faith and be of good cheer! The tasks that beckon us in every field are not easy. Our course is hazardous and our triumph is not assured; but even failure here in the cause of life is better than the more fashionable kinds of success. Yes: have faith! The human race always behaves best when the odds are against it. And if we do not flinch or retreat, life may still surprise us.

Book Reviews

The American Civil Engineer. Origins and Conflict

By D. H. Calhoun. 9¼ in. 309 pp. + map. Cambridge, Mass.: Harvard U.P. 1960. £2 4*s*.

American Building Art. Vol. 1. The Nineteenth Century

By C. W. Condit. 9¾ in. 388 pp., incl. illus. Cambridge, Mass.: Harvard U.P. London: Oxford U.P. 1960. £4 7*s*. 6*d*.

The Education of an Architect

By R. Llewelyn Davies. 10¼ in. 14 pp. H. K. Lewis for University College, London. 1961. 2*s*. 6*d*.

A common theme runs through the two books from America and Professor Llewelyn Davies's inaugural lecture at University College, London. It is that, in a period of rapid change, theory is the bedrock on which the education of architect – and civil engineer – must be founded.

Calhoun, a research fellow of Harvard University, writing of the origins of the American Civil Engineer, begins by comparing the 18th and 20th centuries. Engineers, architects, artists, mechanics – all fall into a general category of devisers of physical objects. In the 18th century, their employers were usually individual proprietors – men like Matthew Boulton, for example. These men in the course of enterprise – building a country seat, a factory, or a turnpike – had to make decisions on the physical processes involved.

In a society in which the physical arrangements of life do not change much from year to year, techniques fall into a routine that can be administered by overseers. The proprietor need not concern himself with processes unless he was an amateur enthusiast. Where physical arrangements are changing, but at a moderate rate – as they did in 18th-century England, the proprietor 'may learn what he can of the new and then feed this into the old routine . . . he may apply himself to collecting plans and to supervising carpenters, masons, and artists. Precisely because change is only moderate, he can do these things himself'. In a rapidly changing society, however, the proprietor is helpless. 'Buildings must follow proportions that only a skilled initiate of some new aesthetic knows how to arrange. The millwright cannot puzzle out how to extract more power from the local water supply.' The expert deviser has to be called in.

Calhoun goes on to apply this viewpoint to the changing world of the United States after 1816 when new works, particularly canals and railways, necessitated new knowledge and the collective proprietor – corporation and government – more and more replaced the individual. He traces the growth of a civil engineering profession and the conflicting ideas on how it should be manned: should the new works be entrusted to a practical tradesman, or to one of the gentlemen-entrepreneurs who had a smattering of the new techniques; or should professionals like Latrobe, the English civil engineer-architect, and L'Enfant, French military engineer and town planner, be imported from Europe? In the event, until the land-grant colleges were established in the 1860s, the need was met by men trained either on large public works like the New York canal system, or at the United States Military Academy, West Point, set up in 1802 by, among others, Jefferson who hoped it would become a national school for science. It was through West Point that American civil engineering acquired its theoretical background – based on French 'polytechnique' influences.

Quotation at length from contemporary documents does not make the history of the early conflicts easy reading for one unfamiliar with the period of American history. But even if these middle chapters are hurried through, the last section is worth careful reading. In it, Calhoun draws on lectures on 'The Harmony of Theory and Practice in Mechanics' given a century ago by Professor Rankine at Glasgow. On one hand was theory, the liberal arts, and a willing-

ness to seek technical innovation; in the other practice, the mechanic arts and a cautious empiricism relying on traditional design. In the union of theory and practice, theory clearly had the dominant position. Professor Llewelyn Davies echoes these thoughts in noting that, in an architect's education, 'while he needs to understand the fundamental theory of a very wide range of subjects, he does not have to go far down the path of practical application in all of them'.

Condit, who teaches history of science at Northwestern University, describes and illustrates the structures which the emerging expert deviser created in 19th-century America. (The book's title may mislead. The building art described is that of structural engineering in wood, iron and concrete. Four of its main chapters deal with bridges, as does half the chapter on concrete construction.)

American Building Art is invaluable as a source of information on such matters as the balloon frame; the beginning of iron construction – particularly of the work of Badger and Bogardus, the New York iron founders, who made the construction of cast iron buildings into a major industry; the development of reinforced concrete – largely through the efforts of an Englishman, Ransome. It is comprehensively illustrated, mostly from contemporary sources. Its publishers' claim that 'it relates social, cultural and scientific development of the time to technical advancement in building and architecture' is, however, open to question. Nevertheless, its introduction and final chapter – an architectural appraisal – are well worth reading.

A feature of American building in the 19th century, Condit points out, is that 'the age-old dominance of an empirical and pragmatic approach was at last giving way to a scientific technology'. Its source was the synthesis of engineering, scientific and mathematical talents found in France at the beginning of the 19th century. One of Condit's principal themes is their impact on the 'pragmatic habit of mind, often scornful of abstract theorising' which was common among American builders. They resisted the theory. 'But the sheer magnitude of the problems involved in long-span railroad bridges and framed skyscrapers eventually compelled the engineers to master the scientific and mathematical tools. The day of the carpenter-builder was out once and for all.'

Llewelyn Davies, in a most important statement on English architectural education, says much the same. He stresses 'the hard fact that the concepts of theory of structure are mathematical. There is no easy way of imparting a sense of structure – it can only be done through mathematical understanding'. Again he writes on the teaching of building construction, 'the lesson is that we must go back to the basis of the subject. We must give up the attempt to pursue in an academic course the application of technology in every field of building. These applications will be better learnt by the young architect during his early years of practice . . .'

Calhoun and Condit both write at length. Llewelyn Davies' statement is short and to the point. Its form – an inaugural lecture – prevented elaboration. I look forward to seeing educational theory turned into practice.

GEORGE ATKINSON [*A*]

A Career in Architecture

By Michael Pattrick and Michael Tree. Museum Press. 15*s*.

This is an unfortunate publication which will hardly meet the need of the people for whom it was presumably intended – parents, intending students or careers masters. There is great need for a good book on architecture as a career that will attract the keenest and most suitable talents into architecture, deter the unsuitable, and convey the necessary factual information about architecture, career prospects and educational courses. This book does not fill that gap.

It fails primarily because it is written without feeling or enthusiasm. It is cautiously uncommitted on any controversial issue, and uninterestingly written. Its structure, like the writing, is not calculated to encourage potential students, for the book begins with a chapter on 'The History of the Profession' that opens with the following sentence:

'In the present day, an architect is not allowed to advertise himself, and if he puts his name on the scaffolding of a building designed by himself he is in the United Kingdom required to conform to a certain size of lettering.'

After this unpromising beginning the architectural aspirant is submerged in such secondary matters as the 19th century argument about architecture as an art or a profession, the Registration Acts, the origins of the Licentiate class, and the possible formation of a class of architectural draughtsmen, and has received the first of many heavy-handed warnings about the fate that may await him when he qualifies. It is, of course, essential to dispel false illusions and false glamour, but the possible disappointments and the humdrum character of many tasks should be stated in the right context by an author who can also inspire his readers with the excitement, the stimulus and the responsibility of architecture. Set in the context of this book they may have the effect of driving away those who should be knocking at the door, eager to accept the challenge.

The book does, in successive chapters, give a reasonably clear picture of the work that goes on in several kinds of architects' offices, the curriculum of the AA School as it was a couple of years ago (described as a 'typical' curriculum), a list of recognised schools, some clues to the prospects of post-graduate training, and a fair amount of other information.

All this is useful but it is marred by inaccuracies, and presents a picture of many aspects of architectural life that few will find valid. The clients in the job whose progress through 'a country architect's' office is described does not seem to be very concerned about costs, for he prescribes no cost limit, and the architect does not ask for one. The procedure for obtaining town planning permission is ignored, and the impression is given that where land is 'zoned for building', the architect has no need to apply for outline planning permission. Planning, indeed, is one of the authors' blind spots, for they list 'town planning' among 'Careers Related to Architecture' after building, painting, quantity surveying, estate surveying and interior design (a more suitable career than architecture for women, the authors think). The information about town planning courses is poor, for it mentions only the University of Liverpool's Civic Design Course, and does not consider, for example, University College, London.

The inaccuracies are not matters only of proof-reading (to which, no doubt, one must ascribe printing Astin for Aslin, York for Yorke, Rasmassen for Rasmussen) but the book contains at least one elementary schoolboy howler, in which Inigo Jones is stated to have been a professor of mathematics at Oxford until the age of 30. It contains some naiveties – such as that an architect can publish a book at any time in his career – and does not question the assumption that famous architects should get away with paying smaller salaries because keen young architects want to work for them. But these are at least the authors' own opinions and errors. What is less excusable is a carelessly worded preface which says that Mr Everard Haynes and Sir Leslie Martin both 'made useful criticisms and suggestions', for this would suggest that they both saw and vetted the full manuscript. Sir Leslie Martin was in fact only shown a few paragraphs concerning Cambridge University, and Mr Haynes only checked the chapters on architectural education for accuracy.

In short, while it is most commendable that someone should have tackled a subject that must be extremely difficult to do well, this book fails to bring it off.

English Decorative Ironwork from Contemporary Source Books, 1610–1836

By John Harris. 10 in. 18 pp. + 168 plates. Alec Tiranti. 1960. £2 2*s*.

Regency Furniture Designs from Contemporary Source Books, 1803–1826

By John Harris. 10 in. vi. 26 pp. + 281 plates. Alec Tiranti. 1961. £2 2*s*.

Mr Harris of the RIBA Library staff has put together two delightful illustrated books. Prefacing each with a brief and lively essay, he has drawn for his sources in the first book on Tijou, Gibbs, Langley, Jores, the Welldons, Bottomley and Henry Shaw among others, and in the second on Sheraton, Hope, Ackermann, Nicholson and the complete set of plates from George Smith's *Collection of Designs for Household Furniture*. It is most helpful for the student of the period to have all this material, normally so inaccessible, conveniently gathered together, and the two annotated books will be both attractive and useful. In Tiranti's Master Hands series they join a reprint of a rare and captivating *Treatise on Japanning and Varnishing, 1688* by Stalker and Parker.

D. E. D.

Häuser mit Berufsräumen.

By Rainer Wolff. 10¼ in. 88 pp., incl. 70 photos + 100 drawings. Munich: Callwey. 1960. DM 12.50.

The problems of those who carry on their professional activities at home (e.g., some architects, doctors, painters, writers, owners of small businesses, etc.) are the stuff of this attractively produced little book. Twenty-nine recent examples of such houses are briefly analysed and illustrated after a general introductory chapter, in which the principal factors are set out.

J. C. P.

The Construction of Gothic Cathedrals: A Study of Medieval Vault Erection

By John Fitchen. 11 in. xxii + 344 pp. + 73 illus. Clarendon Press: Oxford U.P. 1961. £3 3*s*.

There are many curious gaps in architectural literature which pass unnoticed until filled by some new volume, and are then hard to appreciate in retrospect. One such transformation in scholarship occurred in France with the publication of the *Recueil* of Mortet, continued by M. Paul Deschamps; another in England when Mr L. F. Salzman's documentary history appeared in 1952. Both of these great works answer questions by means of quotation from original documents, brought together by exhaustive search of the material that had survived. The present book, by an American architect turned Professor of Fine Arts, similarly waves a magic wand over the scene, but not primarily because of the answers it contains. The essential value of John Fitchen's work is that it poses a series of questions never, in any orderly manner, asked before.

Architects mostly take for granted the elementary techniques of building: not 'Building Construction' as learned by the student, but the actual methods used by craftsmen: how to mix mortar, the means of levelling and plumbing brickwork and masonry, the design and erection of scaffolding, centres, and other falsework. Even when an architect with exceptional experience of ancient structures and of traditional methods is well informed, he rarely if ever commits his knowledge to writing, still less to print. Advancing techniques sometimes demand fresh text-books for master builders, but few of these reach down to fundamentals, and none is old enough to record at first hand just how Gothic fabrics *were* erected.

Among the unanswered questions of Gothic construction, one is central: *precisely* how were the high vaults built over the naves of the greatest churches, the masterworks of the Ile-de-France tradition? The documents, the fabrics themselves, and common sense, prove that both scaffolding and centring were employed, but hitherto this bare and generalised assertion has sufficed. Professor Fitchen's query can be slightly over-simplified: Given that normal timber scaffolds and arch-centres have enabled a high nave, with its flying-buttresses, cross arches, and diagonal ribs to be built, how can the empty webs between the ribs of a French Early Gothic vault be filled? His book attempts, by means of thoughtful induction and the study of models (translated into admirable bird's-eye drawings for illustration), to provide a satisfactory answer.

In the process a great many matters of profound interest are touched upon, not least the inescapable fact that models must have played a considerable part in the processes of medieval design, as they demonstrably did later. Only thus can the Gothic masters' foreknowledge of adequate stability be explained. Contrariwise, serious doubt is cast upon the feasibility of the extensile *cerce* postulated by Viollet-le-Duc, and upon other facile explanations advanced in modern times. As a destructive analysis of a very wide literature (and little indeed has escaped the author's survey), the book is masterly.

Its main defect is that it presents logical results which are purely hypothetical for lack of confirmation from original sources. Indeed, it must be said that the conclusions are not entirely convincing when measured against our analogous knowledge of other medieval procedures. At many points we are left crying out for a radically fresh examination of the great churches themselves; a new reading of all the surviving fabric rolls (and more especially the French ones, hardly represented in the collection of Mortet and Deschamps; and it is singular how very few of the many English accounts deal with the building of stone high vaults); and for an hour's conversation with a French cathedral mason.

This is as it should be: the partial and possibly unsatisfying answers elicit a crop of further queries, only to be answered by field research on a large scale. The apparently minor gap of mere detail in our knowledge has been shown to be a wide field of extraordinary obscurity at the very heart of the greatest technical and aesthetic achievement of Western Europe.

At the centre of the fresh investigation called for must lie the (now extremely urgent) interrogation of traditional craftsmen in France and elsewhere; the collation of Renaissance and other paintings, engravings and drawings that show buildings in construction (and may record survivals of earlier usage); the analysis of medieval mortars from high vaults and elsewhere (to discover whether fast-setting mixes were used); the recording of such peculiarities as holes pierced through vault-webs (were scaffolds and centres suspended from the roof-ties?); and a search for fabric accounts concerned with vaults.

Such a programme of research may in the future yield definitive results. If so, they will stem from the vital question here set in Professor Fitchen's book, which is not only beautifully produced and illustrated, but can and should be read with pleasure and profit by laymen as well as architects.

JOHN H. HARVEY

Victorian Comfort

By John Gloag. 10 in. xvi + 252 pp., illus. + 16 plates. A. and C. Black. 1961. £2 10*s*.

Mr Gloag has certainly chosen an evocative title, but a title nevertheless that is most apt. In 234 pages, assisted by 16 plates, each with several illustrations, and by countless illustrations in the text, he takes the reader through every aspect of this age of self-satisfaction. All this is epitomised in the dust jacket – a heavy luscious cut-glass decanter of vintage port and Frith's 'Paddington Station', full of the warm, rich colours of enveloping clothes, which express so admirably the comfortable certainty that material progress was inevitable.

There are eight different type-faces on the jacket alone, amply supported by scrolls and squiggles in the best Victorian manner. Overdecorated pub lettering is interspersed with florid script, all to assure the gentle reader that there is no hint of poverty, not even of imagination. But if the jacket is revealing, it is only a jacket, and the book it contains is even richer.

This is not a volume to read straight through. The reader would suffer from as much indigestion mentally as he would internally if he were to wade through a Victorian meal. It is a book to be dipped into like an old bound volume of Punch, a source, incidentally, from which Mr Gloag has repeatedly, and wisely, drawn.

Much of the book is devoted to creature comforts, the padded arm chair, the ample meal, the over-sprung carriage and the fire heaped high with blazing coals, but the Victorians had the additional mental comfort in the certainty that they were always right. They had a comfortable sense of superiority over the less favoured mortals of other countries and other times, yet when their consciences were aroused they never spared themselves until the wrong was righted. This Mr Gloag has also not forgotten, nor has he refrained from laughing at them in a kindly way in his text and in his illustrations. Their childish faith in anything new from an electric hairbrush to a 'Dermathistic' corset, contrasts with the astounding feats of genuine science and engineering that they achieved. One has only to think of the railway system (including the underground) and the birth of the Atlantic liner to be reminded of this. Yet aesthetically, as a nation, they were sterile. If they could only have captured in their art and in their buildings the grace of pure form that they displayed in their carriages or their ships, what a heritage they would have left.

We are all indebted to Mr Gloag for this latest of his many books and look forward to the sequel that he has promised us, *Victorian Taste*.

T. H. B. BURROUGH [*F*]

Suffolk

By Nikolaus Pevsner. (Buildings of England *series*, BE 20.) 7¼ in. 516 pp. including maps and plans + 64 pls. and pp. of illus. Penguin Books. 1961. 12*s*. 6*d*. paper-bound.

As in every volume of the series, there are surprises and recognitions: e.g. an east wall with a flint diagonal grid continued as window tracery, variously allocated between the 14th and 17th centuries, which provoked the guess, 'Randall Wells or Lethaby?' (Barsham); a gateway with early chequer-work of flint and heraldically-sculptured stones, long sought by the reviewer (Butley Priory); and an ancient building doubtful alike in purpose, plan and period (South Elmham 'Minster').

Towns in Suffolk are small, though full of interest: Ipswich takes up 18 pages, Bury St Edmunds (on account of its abbey) 20, and Long Melford eight, with shorter treatises on Sudbury, Lowestoft, and the like. It becomes, in the first two cases, clearer than ever how valuable town plans would be, publishers' economy restrictions permitting; but two 'restored' plans of Bury's abbey are a boon.

The periods, apart from the Saxon, seem fairly represented and therefore reflected in the book. Of the 19th century the worst offender seems to be of 'pretty terrible Gothic' (Haverhill town hall). One is glad to see Leonard Stokes (at Our Lady, Sudbury, 1893) called 'that excellent architect'. The only building of our century illustrated is the Holbrook school by Buckland and Haywood (misprinted Hey-)- the William Haywood of Birmingham Civic Society fame. Norfolk is the next promised thrill.

H. V. M. R.

STEELWORK

What ARE all these cuts in cost?

THE STEEL ITSELF

Higher working stresses have recently been sanctioned; why? Because the strength and dependability of British structural steel have attained such a high level.

In other words, the steel is so strong that for a given job you can safely use less of it . . .

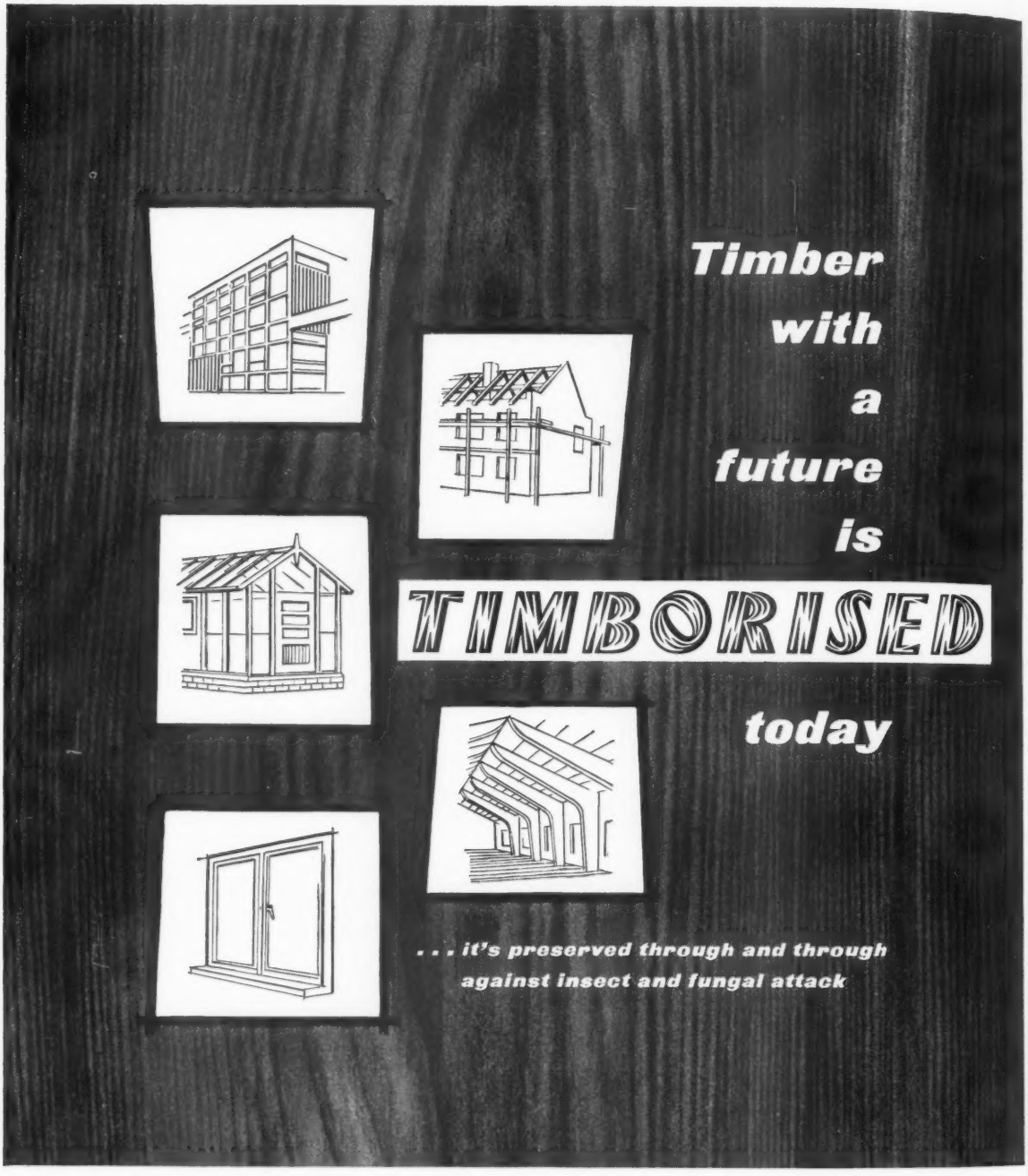
LESS STEEL . . . LESS HANDLING . . .
LOWER COST.

STEEL
STRENGTH
SECURITY

BRITISH CONSTRUCTIONAL STEELWORK ASSOCIATION B·C·S·A

ARTILLERY ROW, WESTMINSTER, S.W.1

This is the first of a series clarifying the recent cuts in cost of steelwork.

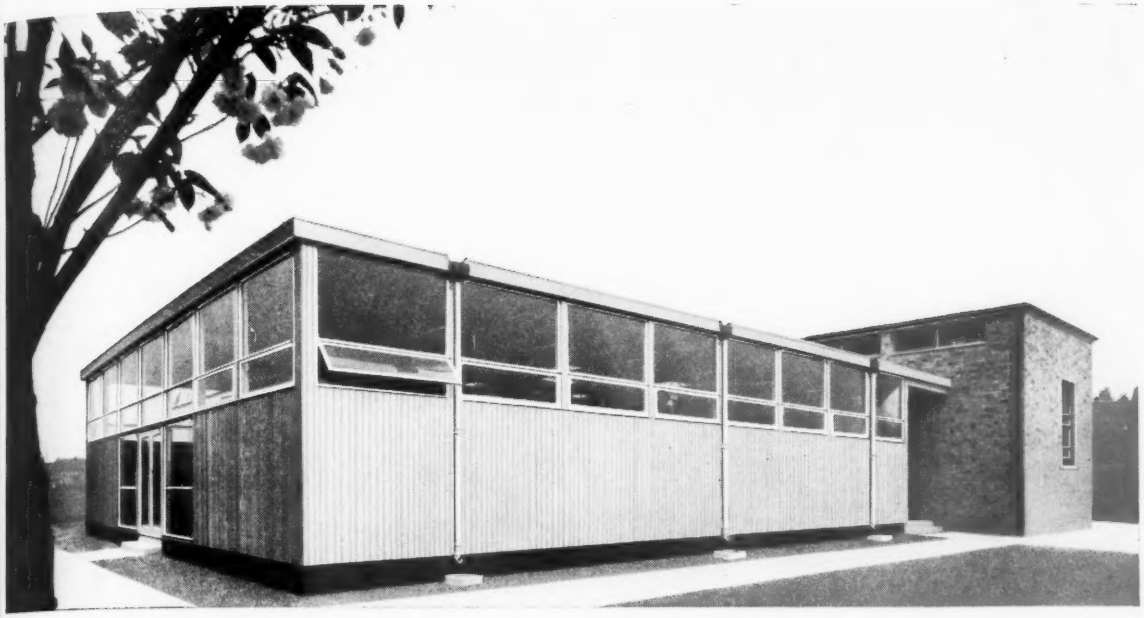


Specify TIMBORISED timber for all building uses

It is seasoned and ready for use. It can be glued, painted, or finished in the normal way. It retains the natural features of the wood with the advantages of through and through TIMBOR preservative treatment.

20 MULE TEAM Registered Trade Mark

BORAX CONSOLIDATED LIMITED BORAX HOUSE CARLISLE PLACE LONDON SW1



ADAPTABILITY - SPEED - LOW COST

PLUS TIMBORISED TIMBER

Preserved for PERMANENCE

Sutcliffe's Prefabricated Buildings can accommodate your individual requirements immediately.

Adaptable for OFFICE, SHOWROOM, CHURCH, HOSPITAL, CLUBROOM, SPORTS PAVILION, and HOLIDAY CHALETS, also LARGE COMMERCIAL GREENHOUSES. Supplied, erected and occupied in weeks only if required. SPEED OF MASS PRODUCTION METHODS KEEPS THE COST LOW.

SUTCLIFFE'S TIMBORISED TIMBER buildings employ a new concept in wood preservation. No fear of Dry Rot (Merulius Lacrymans), or Wet Rot (Coniophora Cerebella) No fear of Woodworm (Anobium Punctatum) Deathwatch (Xestobium rufovillosum) or House Longhorn (Hylotrupes Bajulus) Beetles.

REASON: All the vital timber structural components are DRY and totally impregnated with a toxic chemical. Complete penetration of heartwood and sapwood is obtained by diffusion process. This is the first and only process to attain this remarkable scientific achievement.

SUTCLIFFE'S TIMBORISED TIMBER is odourless, harmless to animals and plants, and is also non-corrosive.

TIMBORISED SUTCLIFFE'S BUILDINGS

● *Write for Technical Data, or ask for representative to call*

F. & H. SUTCLIFFE LTD. 110, Wood Top, HEBDEN BRIDGE. Tel. 217 (3 lines) YORKSHIRE.

Manufacturers of prefabricated buildings for Home and Overseas.

PSA/FHS 75

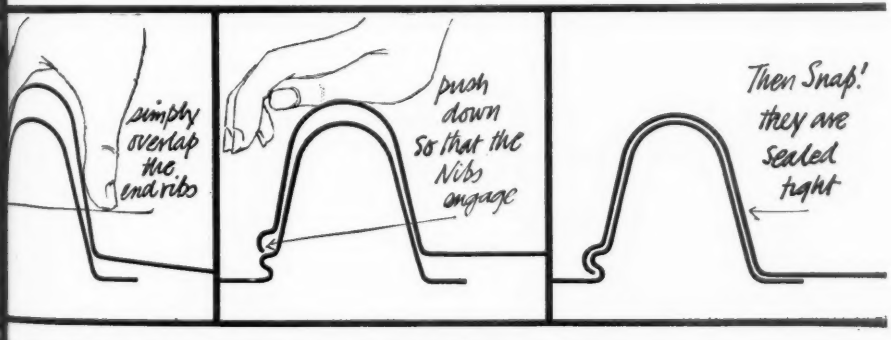
Barbour Index File No. 349

Looks neatest, fits tightest, snaps on– it's Noral **Snaprib**

Now with sealed ends, too

By an ingenious new process these snap-tight aluminium sheets for roofing and siding, which interlock along their whole length, are now made with an integral seal at ridge and eaves. Anchored to the roof without piercing or visible screws or nails, Sealed-end Snaprib gives complete weather-tightness even on shallow-pitched roofs. It is now still quicker to erect, has a better finish and greatly improved appearance. Look for Snaprib on schools, houses, public buildings, offices – wherever good looks and long life must be combined with economy. Our nearest Sales Office will gladly give you further information and the name of your nearest roofing contractor.

The Snaprib system is fully covered by patents held by Cookson Sheet Metal Developments Ltd.



ALCAN INDUSTRIES LTD

A member of the ALUMINIUM LIMITED OF CANADA group of companies

FORMERLY NORTHERN ALUMINIUM CO. LTD

Makers of Noral Alloys

Sales Offices: **BELFAST:** Donegall House, 7 Howard Street, Belfast 32805 • **BIRMINGHAM** Devonshire House, Great Charles Street, 3. Central 7393 • **BRISTOL:** Peloquin Chambers, 18 St. Augustine's Parade, 1. Bristol 20351 • **GLASGOW:** 73 Helen Street, Govan, SW1, Govan 3693 • **LEEDS:** 26-27 Park Row, 1. Leeds 33621 • **LONDON:** 50 Eastbourne Terrace, W2. Paddington 3281 • **LUTON:** 57 Bute Street, Luton 7364-5 • **MANCHESTER:** 23 Princess Street, 2. Central 9335 • **NEWCASTLE UPON TYNE:** Groat House, Collingwood Street, 1. Newcastle 20878 • **Castings & Forgings Sales Division:** Middlemore Road, Handsworth, Birmingham. Northern 3671.

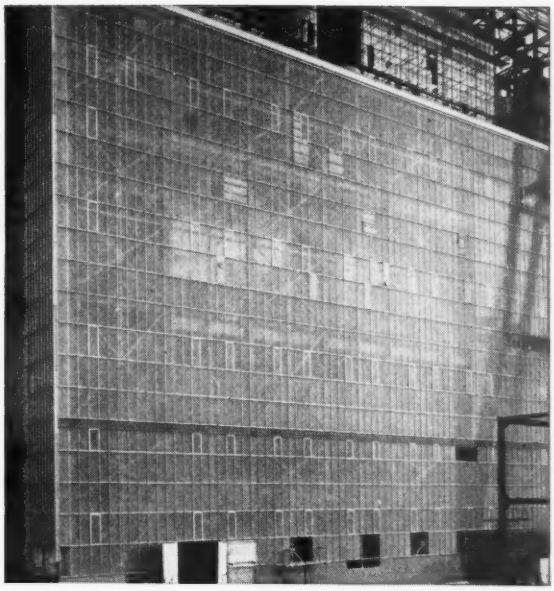
ALCAN

TBW N82

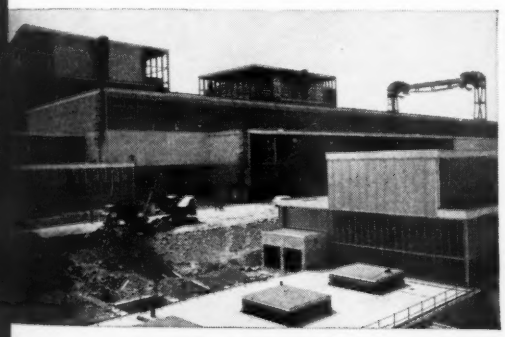
WILLIAMS & WILLIAMS **aluminex patent glazing puts light where you want**

WILLIAMS & WILLIAMS

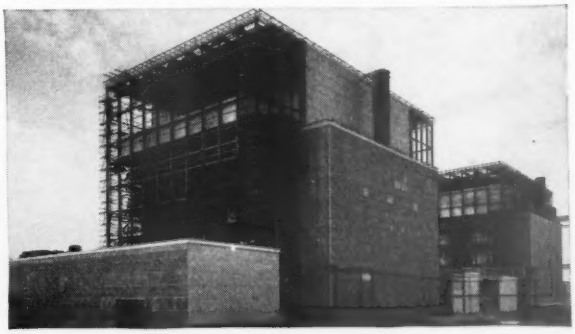
at Hinkley Point



e building at Hinkley Point Nuclear power ation, the first of its size in the world, will rtly be completed. As an outer skin for the o giant reactors and to provide daylight in her parts of the plant, Williams and Williams uminex Patent Glazing was chosen. The difulties to be overcome included great wind sses on such tall isolated structures with exposed coastal site as well as the corrosive nosphere of sea air. The glazing was tested in the Williams & Williams wind tunnel to ensure that it would withstand the loads imposed by winds of up to 104 m.p.h. at a height of 180ft. Cost and a finished appearance that will preserve the local amenities also had to be considered. For the two 180ft. high reactors, the 780ft. long turbine house, pumphouse, chlorination plant and decontamination building over 250,000 sq.ft. of Aluminex is being used, glazed with plate glass or fibre-glass panels.



ms and Williams Aluminex Patent Glazing will provide daylight for the g areas in the turbine house—the longest in Europe—and the house (foreground).



Each reactor building—180 ft. in height—will be completely enclosed by Aluminex. Virtually maintenance-free, Aluminex will defy the wind and the weather.

Under construction for the C.E.G.B. by English Electric, Babcock & Wilcox, Taylor Woodrow Atomic Power Construction Co. Ltd.

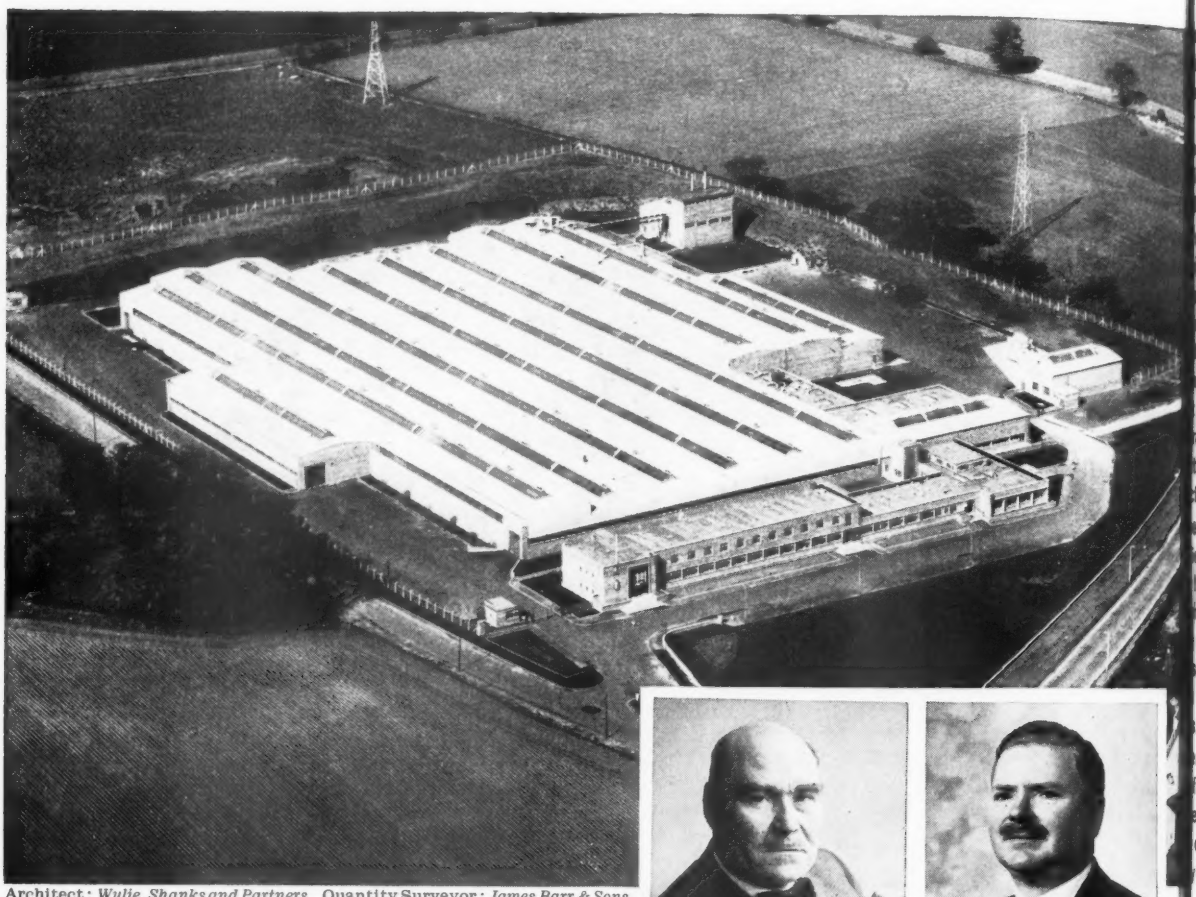
WILLIAMS & WILLIAMS *forward looking building products*

iams & Williams make RELIANCE steel windows of every description, ALOMEGA and other aluminium windows, TEN movable steel partitioning, ALUMINEX patent glazing, WALLSPAN curtain walling and many other products, of which can be seen at our permanent exhibition at 36, High Holborn, London WC1. Telephone No: HOL 9861

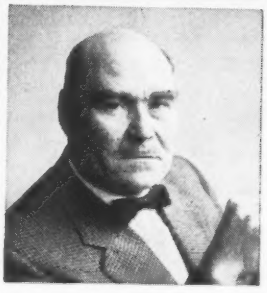
LIAMS & WILLIAMS · RELIANCE WORKS · CHESTER | WILLIAMS HOUSE · 37-39 HIGH HOLBORN · LONDON WC1

SCOTLAND'S NEWEST APPLIANCE FACTORY

Cubitts' precision planning speeds construction



Architect: *Wylie, Shanks and Partners* Quantity Surveyor: *James Barr & Sons*



Mr. A. E. Hitchcock, B.Sc., Technical Director of Morphy-Richards (Astral) Limited, says: "Having been closely concerned with the development of the project, I have been able to appreciate the way in which the many problems of site preparation and construction had to be overcome. Building for industry requires the closest co-operation from the Contractor who must combine speed of construction with an understanding of the specific needs of his Client. The completion of this plant on schedule demonstrates the value of this kind of co-operation."

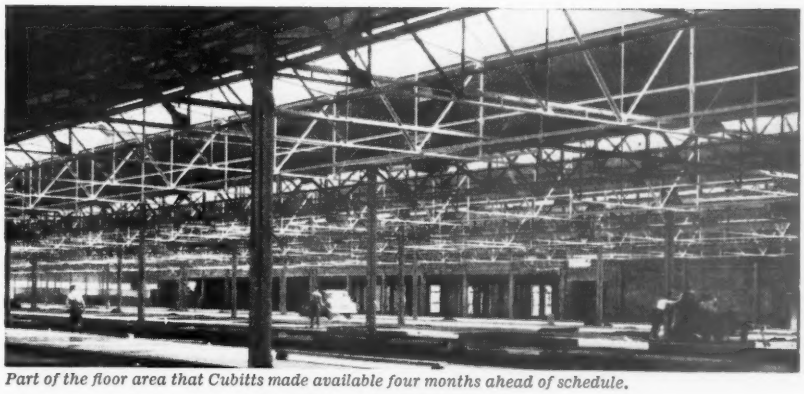
Mr. A. F. Kearu, Managing Director of Holland & Hannen and Cubitts (Scotland) Ltd., says: "From commencement to completion of a contract we like to work in very close collaboration with the clients and their consultants. Such a relationship ensures an up-to-the-minute appreciation of clients' requirements and job problems. At Dundee this close co-operation has enabled extensive areas of the factory to be handed over to Morphy-Richards (Astral) Limited for plant installation many months before the due completion date."

e programming of construction led Cubitts to make half the factory area available for plant installation months ahead of schedule. Thanks e time-saving the newest domestic ence factory in Scotland can go into uction earlier than anticipated.

e new Astral factory at Dundee, ing 350,000 sq. ft., is an excellent le of how Cubitts' policy of pre- planning saves time — and its the client. From the very ning, Industrial Estates Manage- for Scotland, Morphy-Richards al) Ltd., the consultants and ts co-operated on detailed con- tion planning.

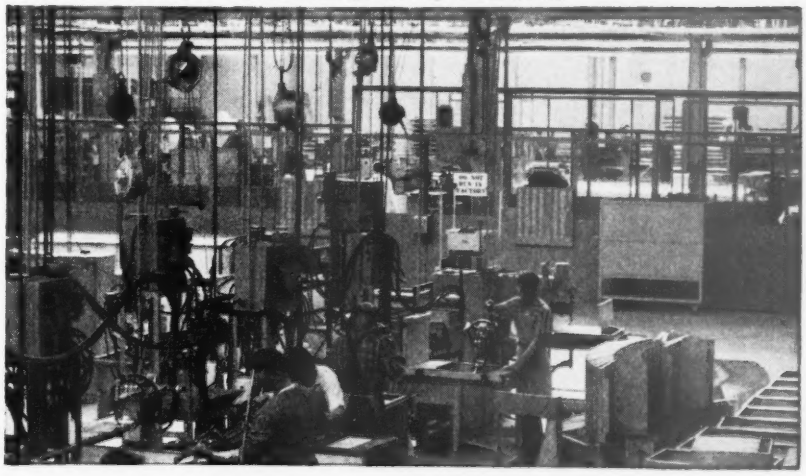
y major operation was work d—for example, it was discovered he best way to tackle the initial g of the eight acre site was by only one excavator and ten dump . They moved over 100,000 cubic of earth and rock within a few .

n, in under three months the vast framework measuring 750 feet by t was erected, and the remainder construction work moved forward according to plan.



Part of the floor area that Cubitts made available four months ahead of schedule.

Production in full swing : one of the cabinet spot welding lines in action.

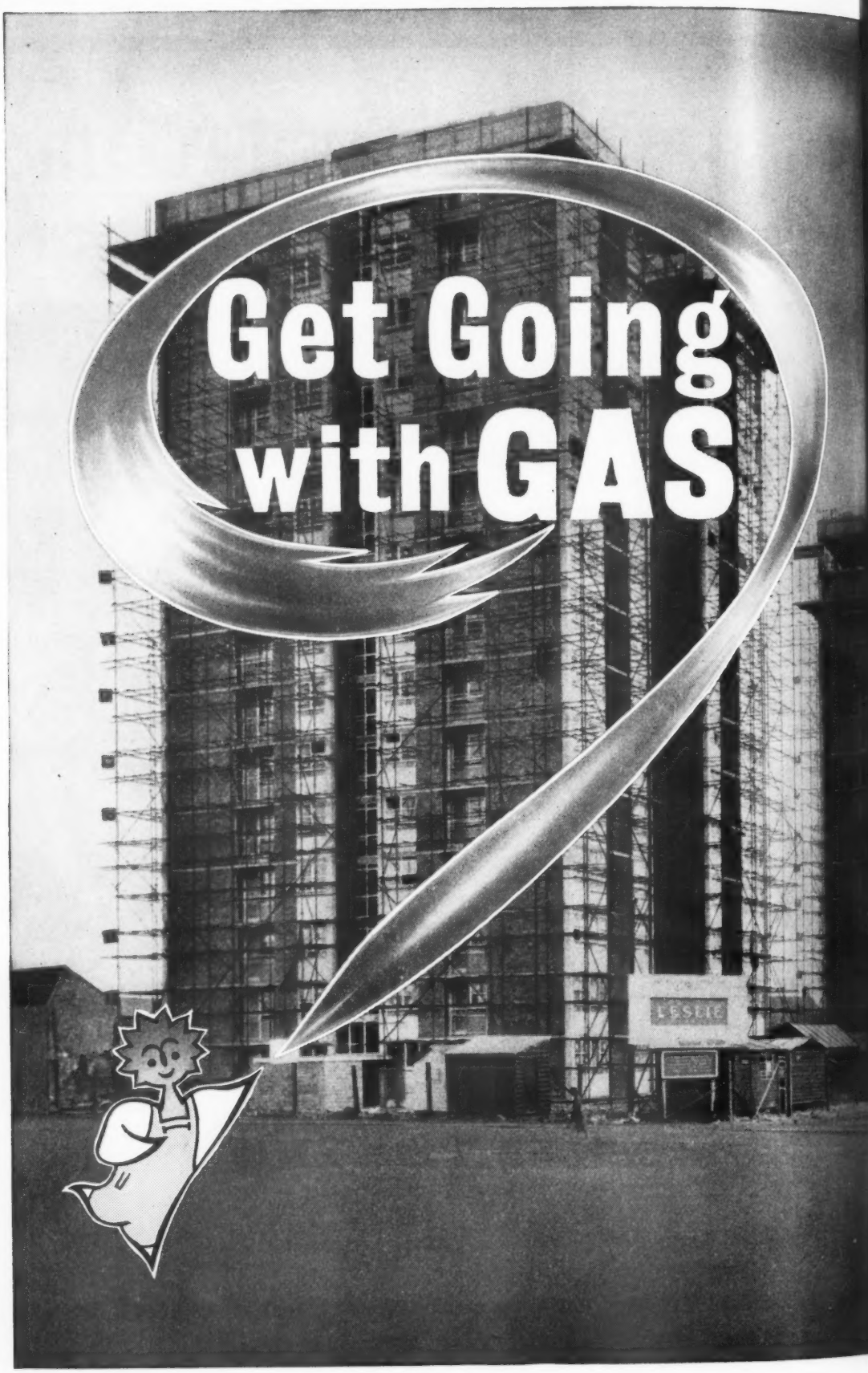


CUBITTS

HOLLAND & HANNEN AND CUBITTS LTD.

1 Queen Anne's Gate, London, S.W.1.

LONDON, EDINBURGH, GLASGOW, NEWCASTLE, LIVERPOOL, BRISTOL, TORONTO, MONTREAL, VANCOUVER, WELLINGTON N.Z., PORT OF SPAIN, TRINIDAD, BEIRUT.


Get Going
with GAS

THE FLEXIBLE FUEL SERVICE

Get going with *Gas*, whatever the job.

Gas **gives fierce or gentle *Heat*;**

fast or slow *Heat*; flexible *Heat*;

fully automatic *Heat*...but always clean,

economic and reliable *Heat*.

With the benefits of the industry's research

and its free technical advisory service,

enjoy confidence with *Gas*.

ISSUED BY THE GAS COUNCIL

K1/B

NAMASTIC ASPHALT INFORMATION BOOKLETS

Published by the National Association of Master Asphalters describing the principles of application of Namastic Asphalt for . . .

FLOORING ROOFING & TANKING

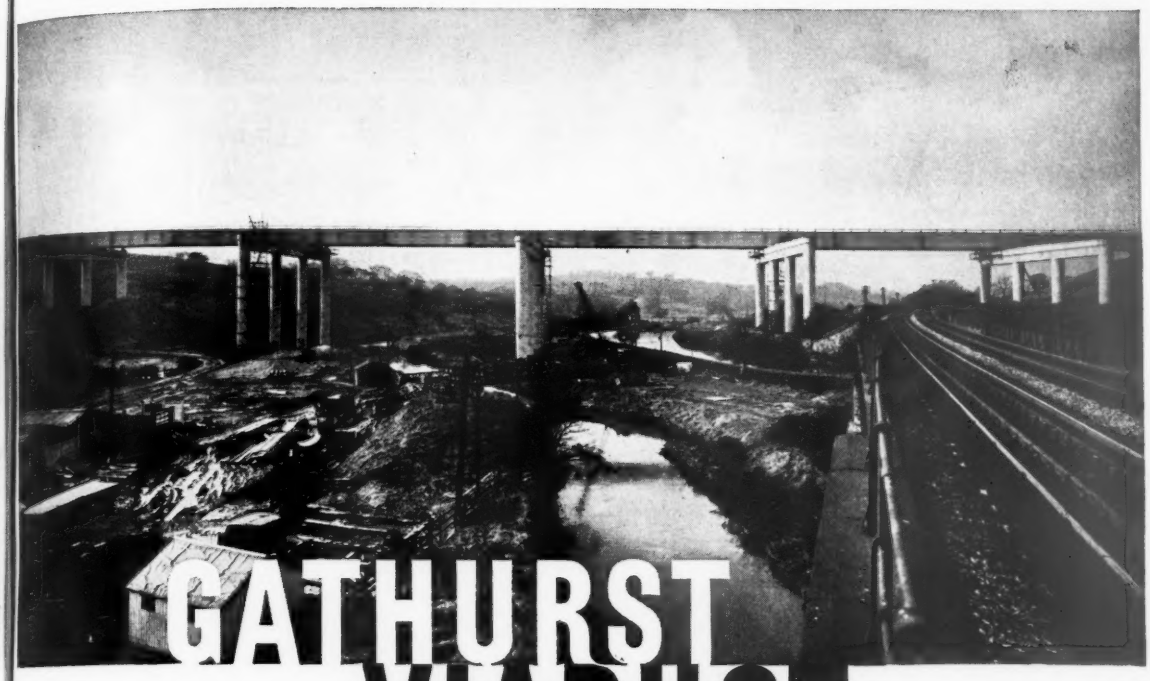
For copies of these booklets and list of Members of the Association, or free technical advice on Asphalt for Building, apply to the Secretary:-

NATIONAL ASSOCIATION OF MASTER ASPHALTERS
9 CLARGES ST LONDON W.I
Telephone: Grosvenor 5333

NAMASTIC ASPHALT is manufactured to very close tolerances from the highest quality mountain limestone powder and blended bitumens. Rigid and comprehensive laboratory controls ensure consistency of quality which safeguards the specification. Lower production costs and the use of all-British materials make NAMASTIC Asphalt the highest quality yet most economical building Asphalt available.

SPECIFY WITH CONFIDENCE

NATIONAL ASSOCIATION OF MASTER ASPHALTERS
"NAMASTIC"



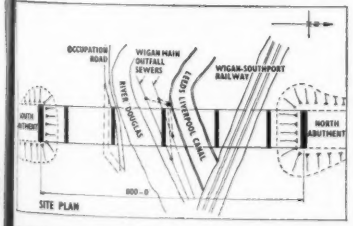
GATHURST VIADUCT

Gathurst Viaduct is a vital link in the new Motorway connecting Birmingham with the Preston By-Pass. The Viaduct was designed under the supervision of James Drake, Esq., B.Sc., M.I.C.E., M.I. Mun. E.,F.I.H.E., County Surveyor and Bridgemaster, Lancashire County Council, who are agents for the Ministry of Transport. Construction by Monk of Warrington, commenced September 1959 and is now well advanced towards its scheduled completion in December 1961.

At the planning stage, access difficulties entailed much negotiation involving the creation of a new road on the North side of the site and enlargement of the existing road on the South side. Areas of bad ground were excavated, refilled and compacted with imported fill—forming embankments to the approaches at both ends of the Viaduct—400 ft. to the North and 200 ft. to the South. Certain drainage work was undertaken, in addition to the diversion of the main outfall sewers belonging to Wigan Corporation and running between the River Douglas and the Leeds and Liverpool Canal.

Consisting of four main spans of 150 ft. each and two 100 ft. side spans, the Viaduct measures 108 ft. between parapets and conveys the Motorway over an occupation road, the River Douglas, the Leeds and Liverpool Canal and the Wigan/Southport Railway line.

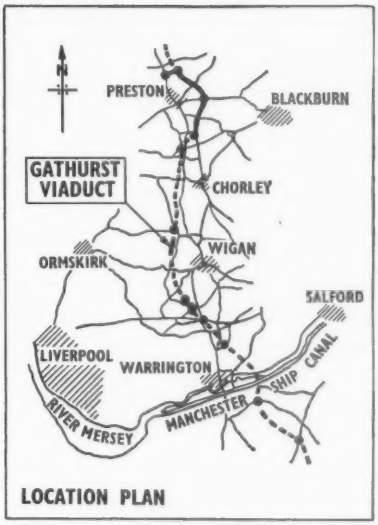
Due to the physical obstructions of the River, Canal and Railway, access to the three centre foundations involved the widening and strengthening of an existing Railway crossing, the construction of a temporary



footbridge over the Canal and a Bailey Bridge to carry 40 tons over the River. The three centre foundations, because of their proximity to the Canal and River, were formed in permanent steel sheet pile cofferdams. Monk faced a problem in the case of the cofferdam built between the Canal and the Railway standing as it did 20 ft. above Canal water level and only about 15 ft. from the Railway, but this difficulty was overcome by driving steel box piles integrated into the cofferdam steel sheet piling and carried to a depth beyond that of the cofferdam itself, with steel raking-shores against the box piles for protection against any possible subsidence of the existing Railway embankment towards the Canal. All the foundation blocks were placed on reinforced concrete piles ranging in depth from 45 ft. to 67 ft. below the foundation blocks and founded in approximately 5 ft. of hard shale, or sandstone, each pile designed to take an individual load of 70 tons. Ground of weak bearing value at the base of both North and South embankments necessitated its removal and replacement by imported filling from an adjacent gritstone quarry.

Steel girders for the Viaduct are designed as continuous, over the full 800 ft. Each girder is of uniform section, 10 ft. deep with 2 ft. wide flanges and of welded construction. Fabrication is in sections of up to 93 ft. in length, which are delivered to the North side of the site, by road transport. The sections are erected on prepared launching tracks formed on the North embankment and braced together in pairs. When sufficient twin beam sections are coupled together, the unit is provided with a launching nose and rolled over the North abutment and each pier in turn until the complete gap has been spanned and the end unit is over the South abutment. The launching nose is then dismantled and taken back to the North embankment ready for re-use—five such repeat operations being required to complete the steel framework of the Viaduct. When all 10 girders are completed, the 9" thick reinforced concrete Deck Slab will be concreted and the entire surface waterproofed. Finally, the carriageways will be carpeted in 3" hot, rolled asphalt in 2-course construction.

The swift, uninterrupted progress of this major construction job, with its initial problems of access negotiation, site preparation and complex requirements of the Viaduct's manifold functions underline the efficiency of Monk techniques.



Once again . . . MONK capacity and versatility are speeding the expansion of Britain's Roadways !

James Drake Esq., B.Sc., M.I.C.E., M.I.Mun.E., F.I.H.E., County Surveyor and Bridgemaster, Lancashire County Council (Agents for the Ministry of Transport). Sub-contractors for supply and fabrication of Steelwork—Robert Watson & Co. (Constructional Engineers) Limited, Bolton.

Monk

A. MONK AND COMPANY LIMITED

Warrington and London

Offices at: Hull, Middlesbrough and Stamford

CIVIL ENGINEERING, BUILDING & REINFORCED CONCRETE CONTRACTORS

WHEN YOU FIT Corrugated 'Perspex' rooflights, you can be sure you are fitting *the very best*. To begin with, Corrugated 'Perspex' is more efficient than any other rooflight because it transmits more light. With a properly planned rooflighting system, Corrugated 'Perspex' will provide adequate economical lighting using only a small number of sheets. It also has the ability to keep up this efficiency over the years even in corrosive atmospheres, retaining its smooth, easily cleaned surface indefinitely. In fact, in the majority of cases, Corrugated 'Perspex' rooflights should last as long as the roof itself.

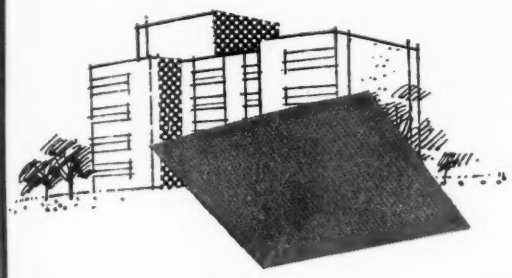
More than this, Corrugated 'Perspex' is unique among rooflights in being made by I.C.I. In buying it, you are not only buying the best, you are buying it from a manufacturer on whom you can rely.

Insist on – CORRUGATED 'PERSPEX'

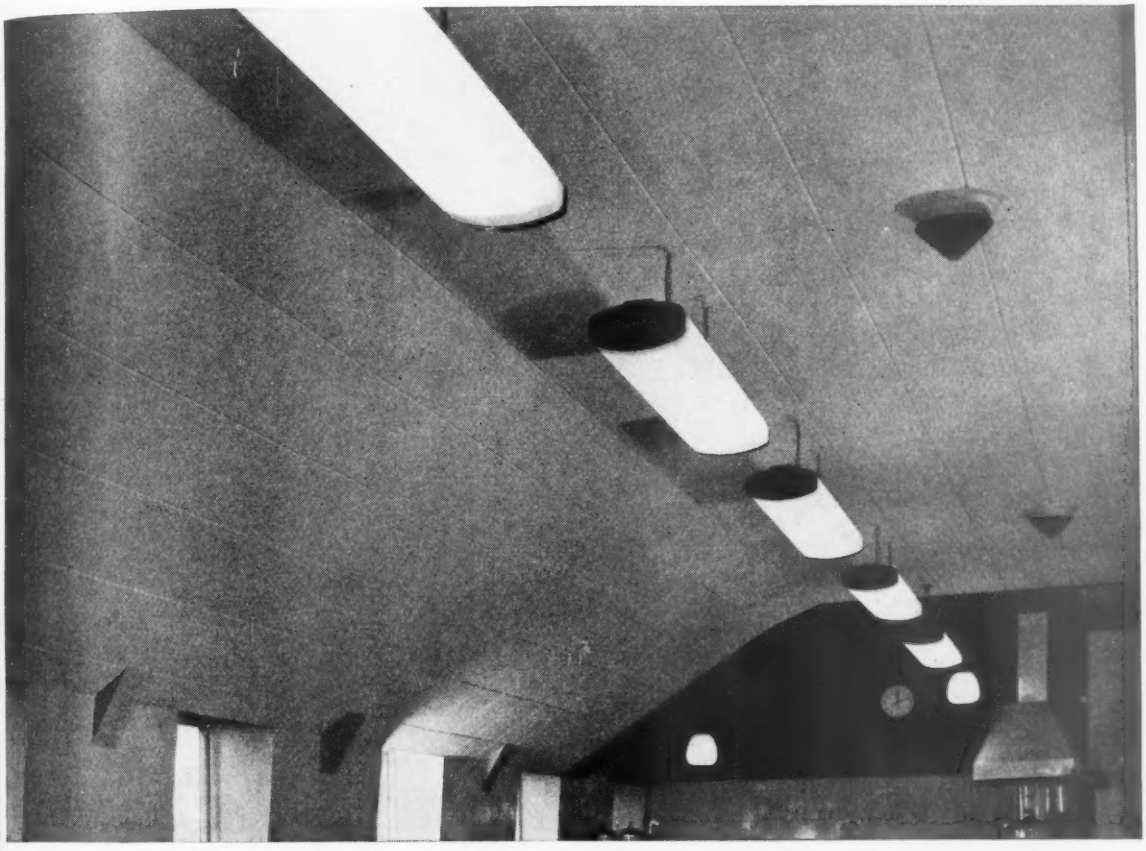
'Perspex' is the registered trade mark for the acrylic sheet manufactured by I.C.I.

IMPERIAL CHEMICAL INDUSTRIES LIMITED · LONDON · S.W.1

CP173



Canteen at the new Liverpool head-quarters of the Liverpool & London & Globe Insurance Co. Ltd. — acoustically insulated with NEWALLS PAXTILES (Regd. Brand)



structural insulation is good insurance

At Head Office, NEWALLS STRUCTURAL INSULATION DEPARTMENT co-ordinates the activities of branch contracting offices and manufacturing to the advantage of architects and their clients. Drawing on the whole range of products of the insulation industry, Newalls structural insulation department provides the complete answer to any building insulation problems—acoustic or thermal.

Newalls
(REG'D BRAND)

NEWALLS INSULATION COMPANY LIMITED

Head Office: Washington, Co. Durham, England. A member of the **TURNER & NEWALL ORGANISATION**

Offices and Depots at: LONDON, GLASGOW, MANCHESTER, NEWCASTLE UPON TYNE, BIRMINGHAM, BELFAST, DUBLIN, BRISTOL and CARDIFF

Agents and Vendors in most markets abroad

98/K

MAGNET FOR THE OUTSIDE*

means just that...

But **means** it

An interior paint decorates: provided it is the right colour, has a good finish and doesn't actually fall off the walls that is — more or less — the end of the matter.

An outside paint, on the other hand, must provide protection as well. If it doesn't it won't even decorate for long.

Thus, though all paints can be used indoors, only some can be used outside.

How to tell which is which? Good outside paints contain white lead. Most good primers and undercoats do, *but the painting system which has a white-lead-based, high-gloss finishing coat as well* is MAGNET.

Magnet finishing paint is scientifically formulated to resist the weather. The medium is an alkyd-resin varnish which, besides giving the paint a brilliant and lasting gloss—and a drying time of 3 to 4 hours—makes it largely self-levelling and thus free from brush marks. The pigments on which its remarkable performance depends are titanium dioxide and, of course, white lead. The titanium dioxide gives Magnet its high obliterating power and resistance to chalking: the white lead, its durability, resistance to penetration by water, and the elasticity which prevents it from cracking and flaking.

Magnet wears evenly: there is seldom any burning off before repainting next time.

*where paint must do more than decorate

ASSOCIATED LEAD MANUFACTURERS LIMITED

CLEMENTS HOUSE, 14 GRESHAM ST., LONDON, E.C.2 : CRESCENT HOUSE, NEWCASTLE, LEAD WORKS LANE, CHESTER

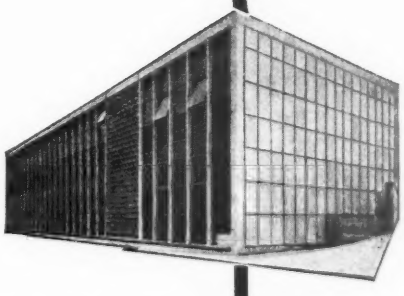
PLYGLASS

and the architecture of today*

St. Mary's College, Leeds: G. Alan Burnett, A.R.I.B.A., A.M.I. Struct E., Dip Arch. (Leeds)

VITROSLAB, dark blue in colour with a smooth external face, blends with the concrete mullions on this project, and plays a considerable part in the creation of a dignified building. Thermal insulation, lightness, and speed of erection were also reasons for the specification of VITROSLAB.

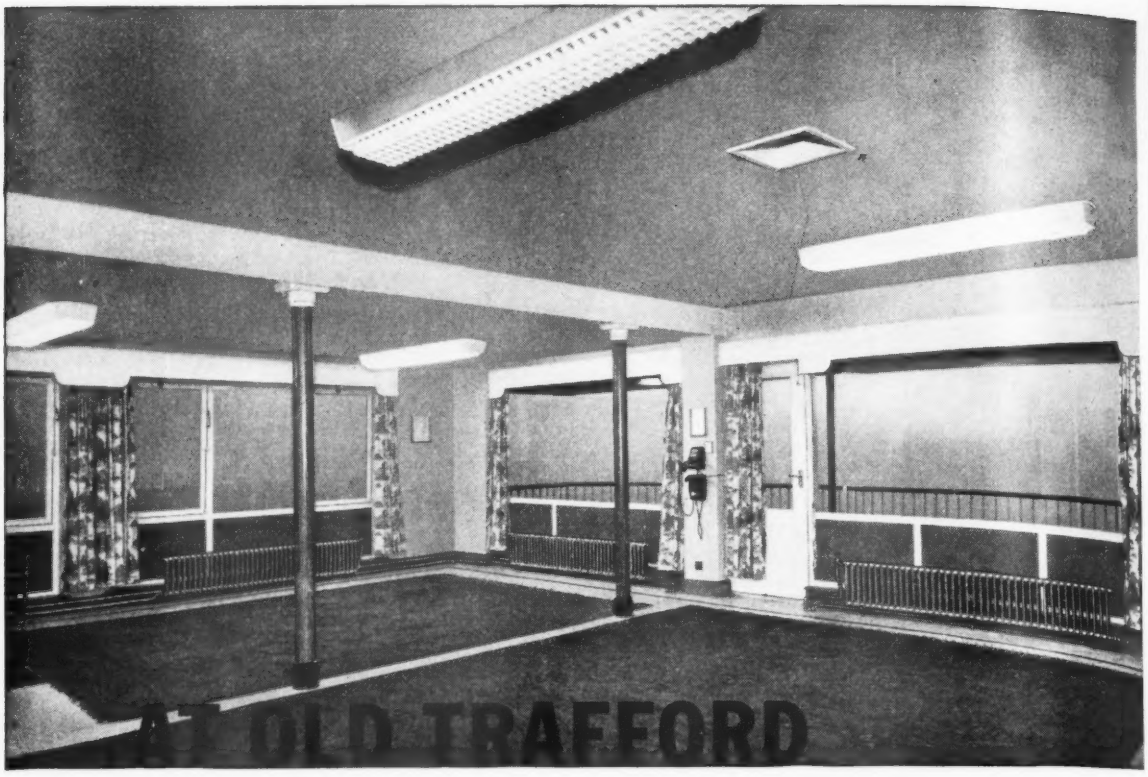
* and tomorrow!



The PLYGLASS range of double glazing units is the most comprehensive in the world.

PLYGLASS LIMITED, EDINBURGH PLACE, TEMPLE FIELDS, HARLOW, ESSEX. Tel: Harlow 24271. Cables: Plylux Harlow

8287



HEATING BY CRANE

Old Trafford, the Manchester headquarters of the Lancashire County Cricket Club, is one of the most famous cricket grounds in the world. Almost every touring team that visits England plays one Test here.

The Club's premises now have a new heating system—by Crane, of course. One No. 37L Whitehall Sectional Boiler, oil burning, has been installed; and throughout the Pavilion building 46–5¾" wide Crane Hospital Pattern Radiators provide the friendly warmth that this form of heating can give. Crane radiators were chosen for their good appearance; because they are smooth castings with adequate space between sections for easy cleaning; because they are made of cast iron for long life; and, most important of all, because they do such a lot for the comfort of the Club members! Shown above is the newly decorated Committee Members' Dining Room.

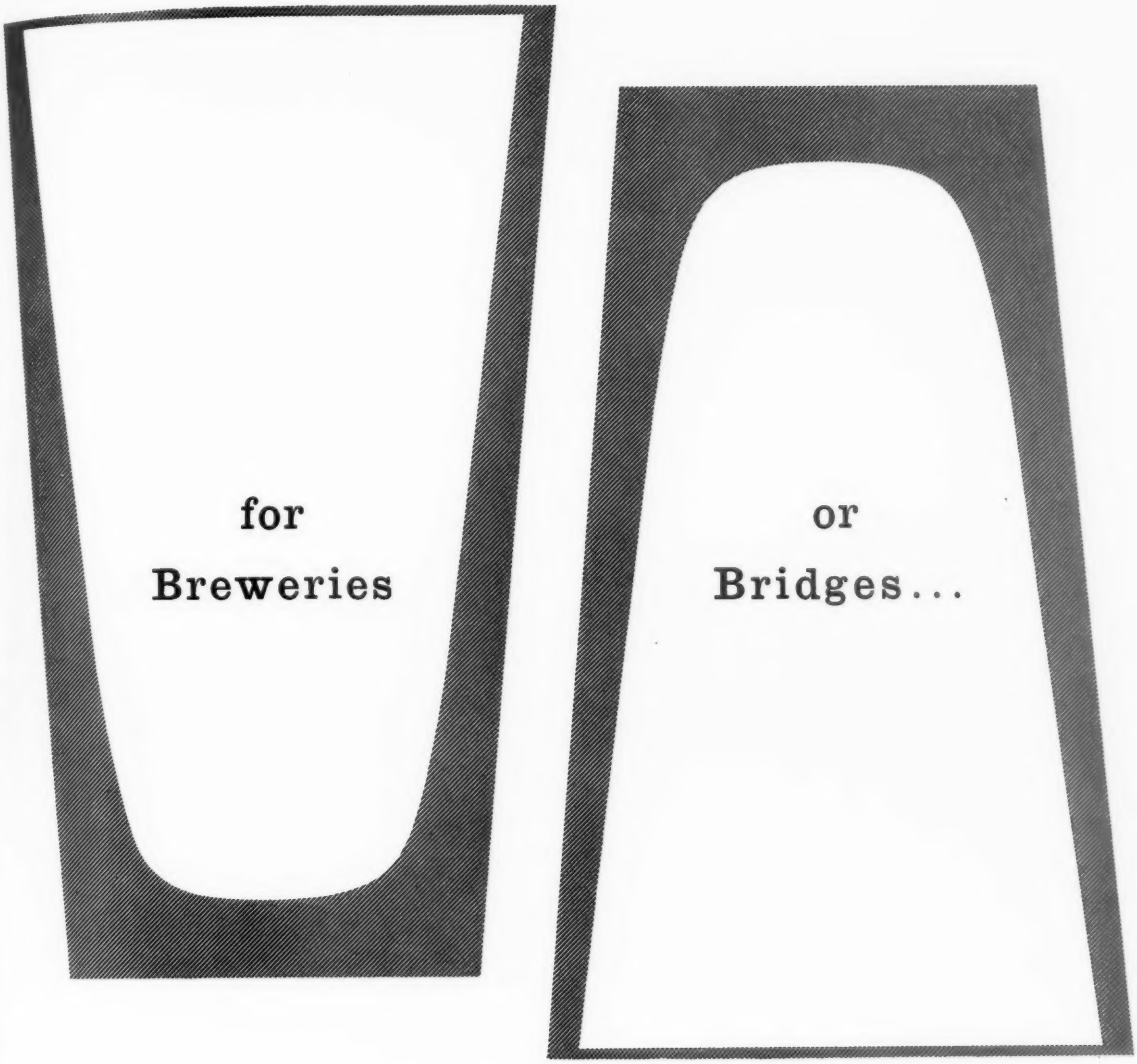
Heating Engineers: Saunders & Taylor Ltd., Manchester 3.
Architects: Bradshaw, Gass & Hope, Bolton.

CRANE HEATING EQUIPMENT

830

CRANE LTD., 15-16 RED LION COURT, FLEET STREET, LONDON E.C.4 WORKS: IPSWICH

Branches: Birmingham, Brentford, Bristol, Glasgow, Leeds, London, Manchester



PRESSURE PILING

solves foundation problems

THE PRESSURE PILING CO. (PARENT) LTD
637 Old Kent Road London SE15
Telephone: NEW CROSS 0347/8/9

THE PRESSURE PILING CO. (NORTHERN) LTD
Charnley Fold Lane, Bamber Bridge, Nr. Preston
Telephone: PRESTON 85723

The original and largest Bored Piling specialists in the world

New Research Laboratory,
I.C.I. Paints Division, Slough.

Architects: T. P. Bennett & Son.

Contractors: Holland & Hannen And Cubitts (Great Britain) Ltd.

Heating, Hot and Cold Water, Ventilation, Electrical, Sanitary, Steam, Gas and Compressed Air Services were entrusted to MATTHEW HALL & Co. LTD

EST. 1848

MATTHEW HALL

MATTHEW HALL
& CO. LTD.

MATTHEW HALL HOUSE, 101-108 TOTTENHAM COURT ROAD, LONDON, W.1
MUSEUM 3676

PORTERFLECK

ONE-SPRAY MULTICOLOUR PAINT

32 RICH COLOUR-COMBINATIONS

A dust-repellent finish for offices, hospitals and other public buildings

Porterfleck is a fascinating new multicolour paint with startling physical characteristics. First, and most important for public buildings of many kinds, it is "anti-static"—its molecular composition stops dirt from settling and keeps the surface clean indefinitely.

Secondly, it keeps its colour "flecks" suspended in the basic colour so that they don't mix even when applied. The flecks are of sufficient size to give a strong visual texture.

The result is a rich, decorative surface that looks like expensive plastic sheeting—yet it's done in one quick spray operation.

PORTERFLECK SAVES MAINTENANCE

Besides its revolutionary dirt-repellent property, proof against normal accretion of dust and grime, Porterfleck has a very hard surface which is washable, unaffected by condensation, and highly resistant to scratching and chipping. It has an unusually long life, and maintenance costs are cut almost to zero.

PORTERFLECK SAVES LABOUR

The film produced by one coat of Porterfleck is 4-5 times as thick as a normal paint film, so it camouflages irregularities in plaster, joins in boards, plaster patches and other surface defects. Always applied by spray, Porterfleck is touch-dry in 2 hours, hard overnight.

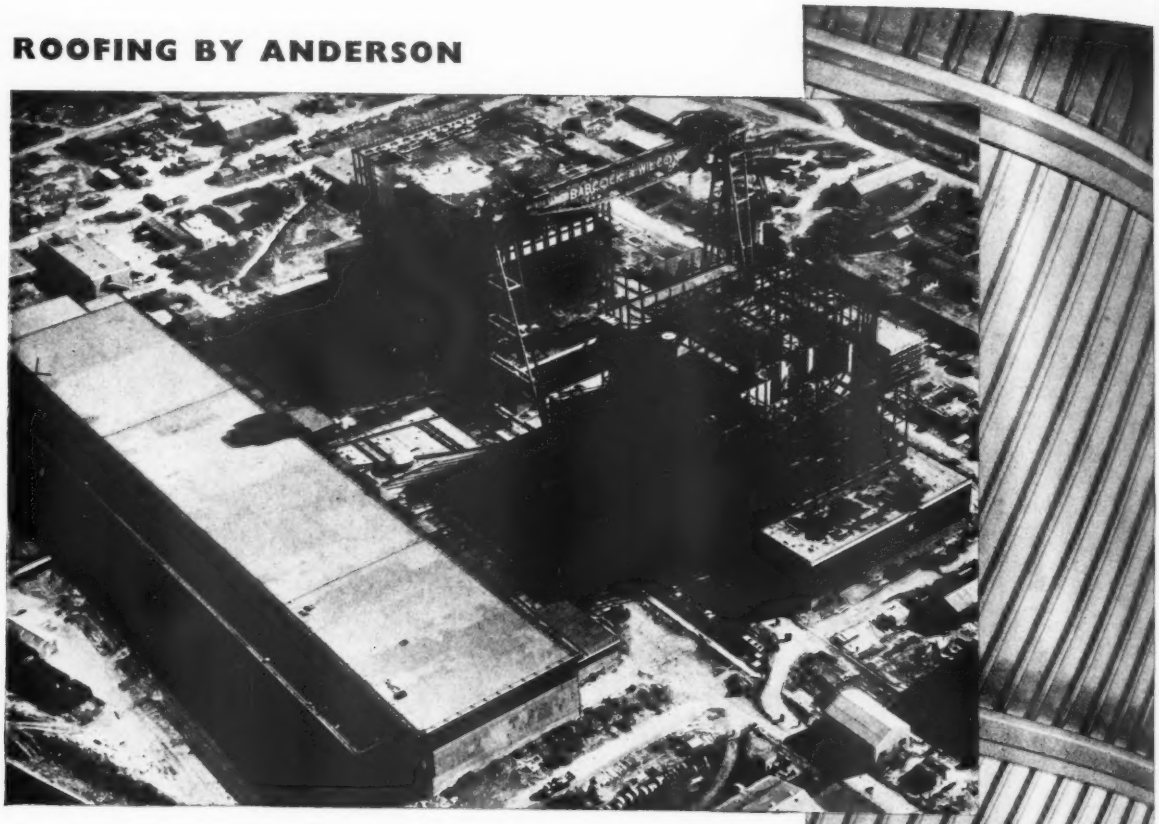
Porterfleck costs very little more than a traditional one-colour finish and can often be applied direct, thus saving the cost of priming and undercoating.

PORTERFLECK

Full details and shade card (32 shades) available on request from:

SISSONS BROTHERS & COMPANY LIMITED, BANKSIDE, HULL

ROOFING BY ANDERSON



HINKLEY POINT NUCLEAR POWER STATION

Over 25,000 square yards of Galvanised Steel 'D' Decking will be used in the roof construction of Hinkley Point Nuclear Power Station.

The roofing to the Turbine Hall, Workshop, Annexes and No. 1 Reactor Building have been completed within the Contract programme, and work is in progress on No. 2. Reactor Building.

Anderson decking in steel or aluminium is available to meet most design requirements.

Technical Publication 2-28 will be sent gladly on request.

For the C.E.G.B.
Contractors, The English Electric, Babcock & Wilcox, Taylor Woodrow Atomic Power Construction Co. Ltd.

D. ANDERSON & SON LIMITED

STRETFORD, MANCHESTER Telephone : Longford 4444 · OLD FORD, LONDON, E.3. Telephone : Amherst 9381

News from Hull

Terminal Building at Shannon Free Airport

'STANDARD' KINGSTON WASH BASINS SPECIFIED

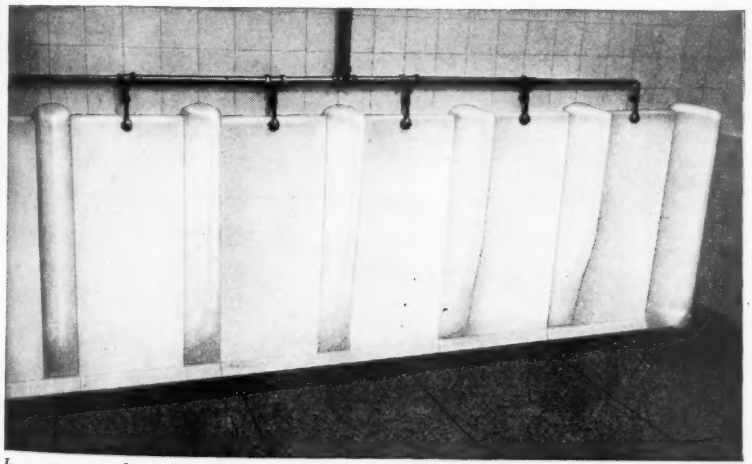
Architect: *Leo M. Carroll, B.Arch., M.R.I.A.I., A.R.I.B.A. Chief Airports Architect*

For thousands of visitors their first glimpse of Ireland is Shannon Free Airport. To make this first impression a pleasant and memorable one, the Eire Government have gone to a great deal of trouble. In the elegant new Terminal Building, everything possible has been done for the passengers' comfort—all the accessories of the building are in keeping with the overall luxurious, yet practical, design.

In the washrooms, for instance, 'Standard' Kingston wash basins, manufactured in vitreous china, have been installed. The wash basins are on concealed wall brackets, and fitted with combination mixer fittings which ensure a flow of water at any desired temperature. 'Standard' Kingston water closets—also in vitreous china, and complementary in design to the wash basins—have been used. These are of the double trap siphonic type with the bowl and cistern close coupled. Both the wash basins and the water closets are in the forefront of sanitary ware design—both are most pleasing in line and appearance and include important technical advantages. 'Standard' Vitural slab urinals, made of vitreous china, have also been installed (see illustration).

AND AT THE GRESHAM HOTEL, DUBLIN

For many of the passengers, their next stop will be at Dublin's famous Gresham Hotel. Here again, 'Standard' sanitary ware has been widely used. In the modern bathrooms, complete with telephones and mosaic floors, coloured Neo-Classic baths with showers have been installed. These are beautifully moulded in one piece, and coated with high quality porcelain enamel. Kingston wash basins, on chrome legs, and the Sanway closet bowl, both in matching colours, complete the sanitary ware in these bathrooms.



Important technical advance in slab urinals

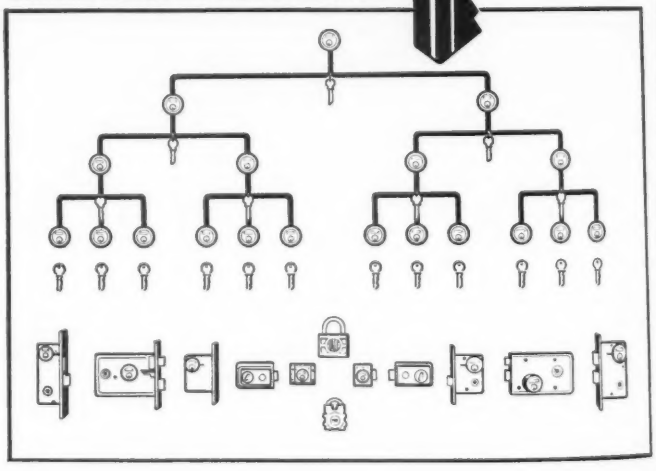
Illustrated is the 'Standard' slab urinal installed at Shannon Free Airport. The Vitural is the first full length slab urinal to be made of vitreous china. Now, as a result, the old problem of absorption in urinals has been eliminated. The Vitural does not harbour smells, and normal cleaning alone will get rid of this unpleasant aspect of public lavatories.

The Sanway is yet another product in 'Standard' vitreous china, famed for its hygienic qualities and durability. The architects who supervised the installation of these new bathrooms are Downes and Meehan of Dublin.

547

There's a high degree of security at Sheffield University

GRAND MASTER KEYED SUITE



At Sheffield University, they have effectively mastered the problem of how to get a high degree of security — with the maximum of flexibility and control. A Yale Grand Master Keyed Suite, consisting of Cylinder Rim and Mortice locks, latches, deadlocks and padlocks provides all-round security throughout the buildings. There are, in all, some 1,500 locks all controlled by one Grand Master Key.

With Yale Master Keyed Suites, the number of differs obtainable is practically unlimited. They can be arranged to cover every need likely to be found in office blocks, factories, schools, hospitals, hotels, and public buildings generally.

Master Keyed Suites. Different locks each operated by its own key but with a Master Key to open all locks. The Master Key can open up to 12,200 different locks.

Grand Master Keyed Suites. Different locks divided into Sub Master Suites. Each Sub Master Key operates all the locks in its suite but not those in other suites. The Grand Master Key will open all—up to 2,200 different locks.

Grand Master Keyed and Master Keyed Suites can be arranged to include cylinder rim and mortice locks, latches and deadlocks, padlocks and cabinet locks. All these types can be controlled by the same Grand Master or Master Key.

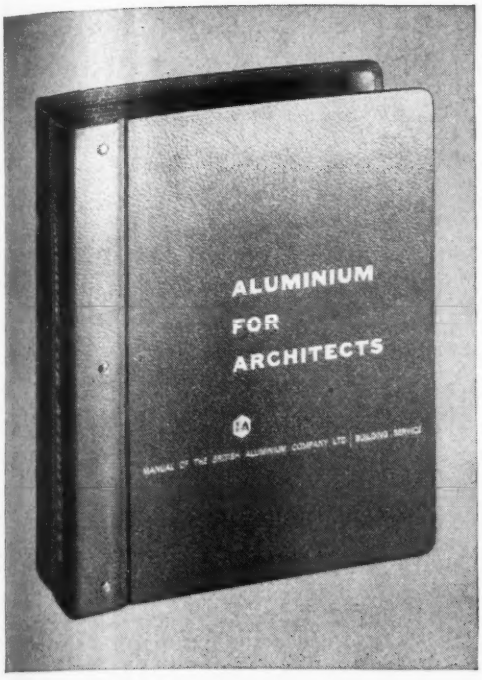
Additional keys for such suites are only issued by Yale on the written authority of the registered owner of the suite.

Literature. Write for explanatory leaflets and detailed specifications.

Where there's a door there's a need for

YALE
REGISTERED TRADE MARK

The Yale & Towne Manufacturing Co
British Lock & Hardware Division
Dept N4 Willenhall Staffordshire



Announcing the BRITISH ALUMINIUM BUILDING SERVICE

A landmark in liaison . . . the most comprehensive building service for aluminium ever made available to architects

The British Aluminium Building Service is an organization specially formed for architects, with a central office in London, and regional and district offices throughout Britain.

The British Aluminium Building Service does two things needed for many years. It provides the architect with complete up-to-date information (including an extensive range of data sheets prepared to A4 size with SfB and UDC classifications) about products and their manufacturers, and helps him over matters of specification, costing, construction and related problems.

The British Aluminium Building Service gives every architectural practice in Britain a comprehensive and objective book of reference* which is as far reaching in its scope as the building service it represents.

** All practices will have received this by 31st October 1961*

THE BRITISH ALUMINIUM COMPANY LTD

Norfolk House, St. James's Square, London, SW1 | TRAfalgar 8888

REGIONAL OFFICES: Greenford (Middlesex). Birmingham. Manchester. Glasgow

DISTRICT OFFICES: Bedford. Bristol. Cardiff. Leeds. Newcastle. Nottingham Southampton. Belfast

'LEAD ASBEX'...*

highest grade flexible Bitumen Dampcourse —Asbestos based with a lead core.

Also available without lead core—'Asbex'*

dampcourses by PERMANITE LTD

designed and made with your reputation in mind, as well as our own.

* 'LEAD ASBEX' conforms to B.S. 743:1951 Type 5F. 'ASBEX' conforms to B.S. 743:1951 Type 5C.

SUSPENDED CEILINGS

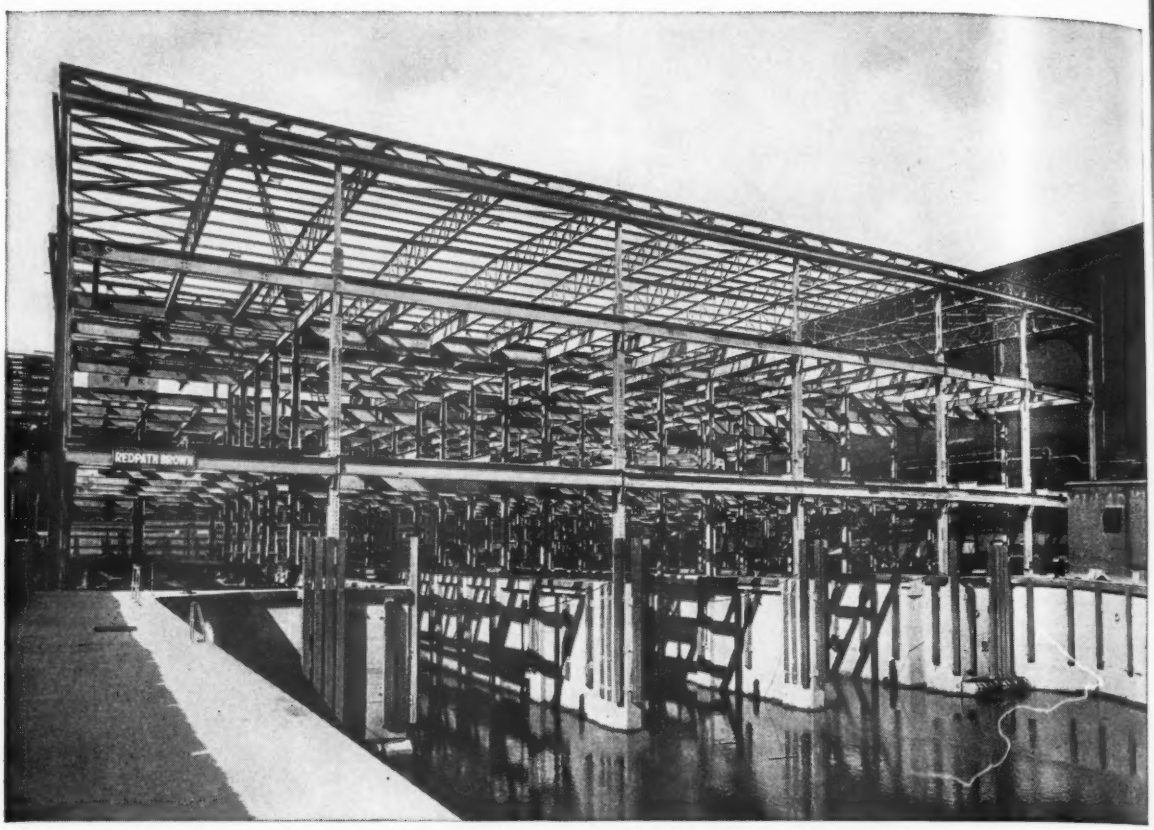
!

YOU SHOULD KNOW ABOUT *Paramount* PLASTIC FACED PLASTERBOARD

With a gleaming, coloured, wipe-clean surface
for a lighter, brighter atmosphere.
In 5 B.S.S. Pastel Shades or White.

BLUE HAWK PRODUCTS

THE BRITISH PLASTER BOARD (MANUFACTURING) LTD FERGUSON HOUSE 15-17 MARYLEBONE ROAD LONDON N.W.1. TELEPHONE HUNTER 4021



The illustration shows the structural steelwork as designed in the City Engineer's Office, 1,700 tons, before cladding.

Covered docks for refuse barges

With open and covered docks for eight barges, which are loaded with refuse consolidated behind doors prior to disposal down river, this new public cleansing depot and wharf has been constructed for the Corporation of London to the design and under the direction of:—

City Engineer: Francis J. Forty, Esq., O.B.E., B.Sc., M.Inst.C.E.

Consultants: Mott, Hay & Anderson,
Civil Engineers for Dock and Depot Foundation.

Sir Hugh Casson, M.A., R.D.I.,
for Architectural Cladding, Administrative Block layout.

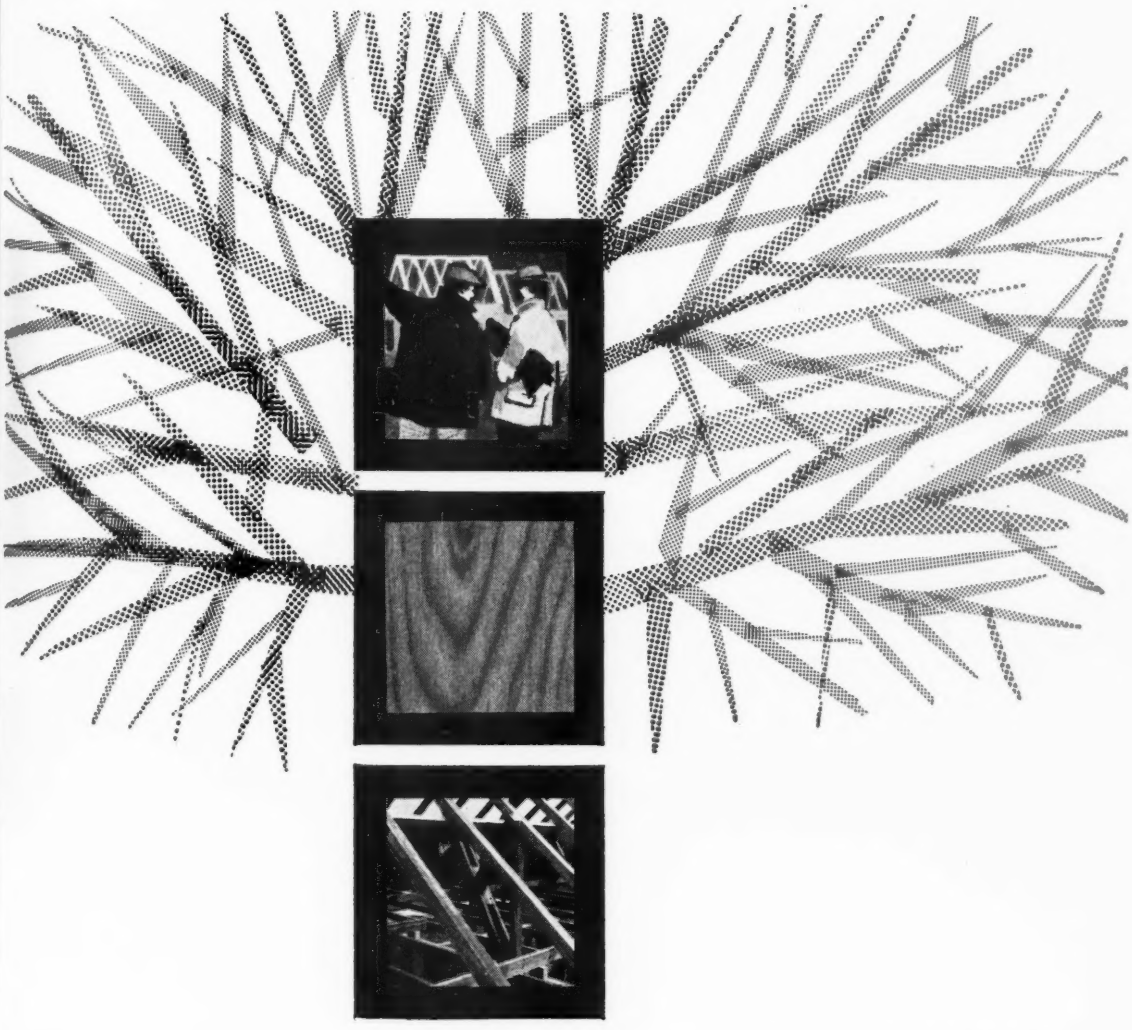
H. A. Sandford, Esq., M.A., F.G.S., M.I.Mech.E., for Electrical and Mechanical work.

STEELWORK BY

REDPATH BROWN

Branches: EDINBURGH, GLASGOW, LONDON and MANCHESTER

STEEL
STRENGTH
SECURITY



Thought...Timber...CELCURE!

For details of the Celcure Advisory Service and up-to-date list of plants, apply to:—

For England & Wales:
Celcure Limited,
Aldwych House,
Aldwych,
London, W.C.2.
CHAncery 8325.

For Scotland:
Celcure & Chemical Co. Ltd.,
300 Bearsden Road,
Glasgow, W.3.
Scotstoun 3351.

Celcure! A detail in the specification, but one that safeguards your building—at very small additional cost. Celcure! A detail in the specification that is permanently appreciated by your clients, because it saves them high maintenance costs.

Applied by vacuum and pressure in special plant, Celcure impregnates timber to the heartwood. Fully protects against rot, fungus, woodworm, etc. No wonder Architects and Surveyors have been specifying Celcure for 30 years. It's sound commonsense to say Celcure!

CELCURE *pressure impregnation*

Photograph published by courtesy of British Railways

Oh! Mr. Porter whatever shall I do...

Whilst waiting to be taken on to Birmingham or anywhere else, take a good look at the new Crewe Station. You will see all the signs of British Railways modernisation and progress; new locomotives, electrification, and new buildings that are fitted with Royal Flush doors. These doors, built to specification, with either solid or semi-solid cores, combine the finest craftsmanship with the best materials and are available in a wide choice of veneers. Unconditionally guaranteed, Southerns Royal Flush doors give dependable service and add style and character to any building.

SOUTHERNS LIMITED **ROYAL FLUSH DOORS**

Head Office: **BOLD SAW MILLS · WIDNES · LANCS** *Telephone: Widnes 2641 (9 lines)*

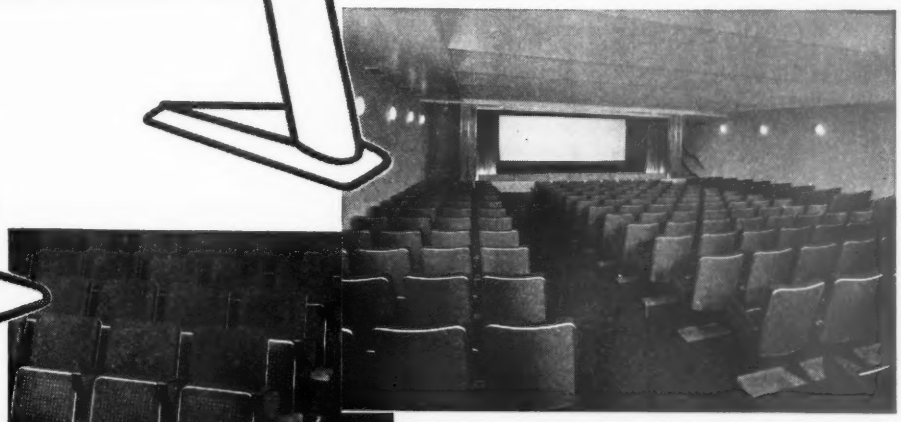
Branches at: BIRMINGHAM · BRISTOL · DUDLEY · EDINBURGH · GLASGOW · HANLEY · KETTERING · LONDON · MANCHESTER

CINEMAS AFLOAT

Cox supply tip-up seating for the cinemas of luxurious ocean liners. Firm comfortable seats that yield to the sitter but not to time, and they are acoustically panelled, which is another cinema attraction. Cox tip-up seating is produced in many designs and for every type of location. Information and advice are readily available.

Other recent marine installations :—

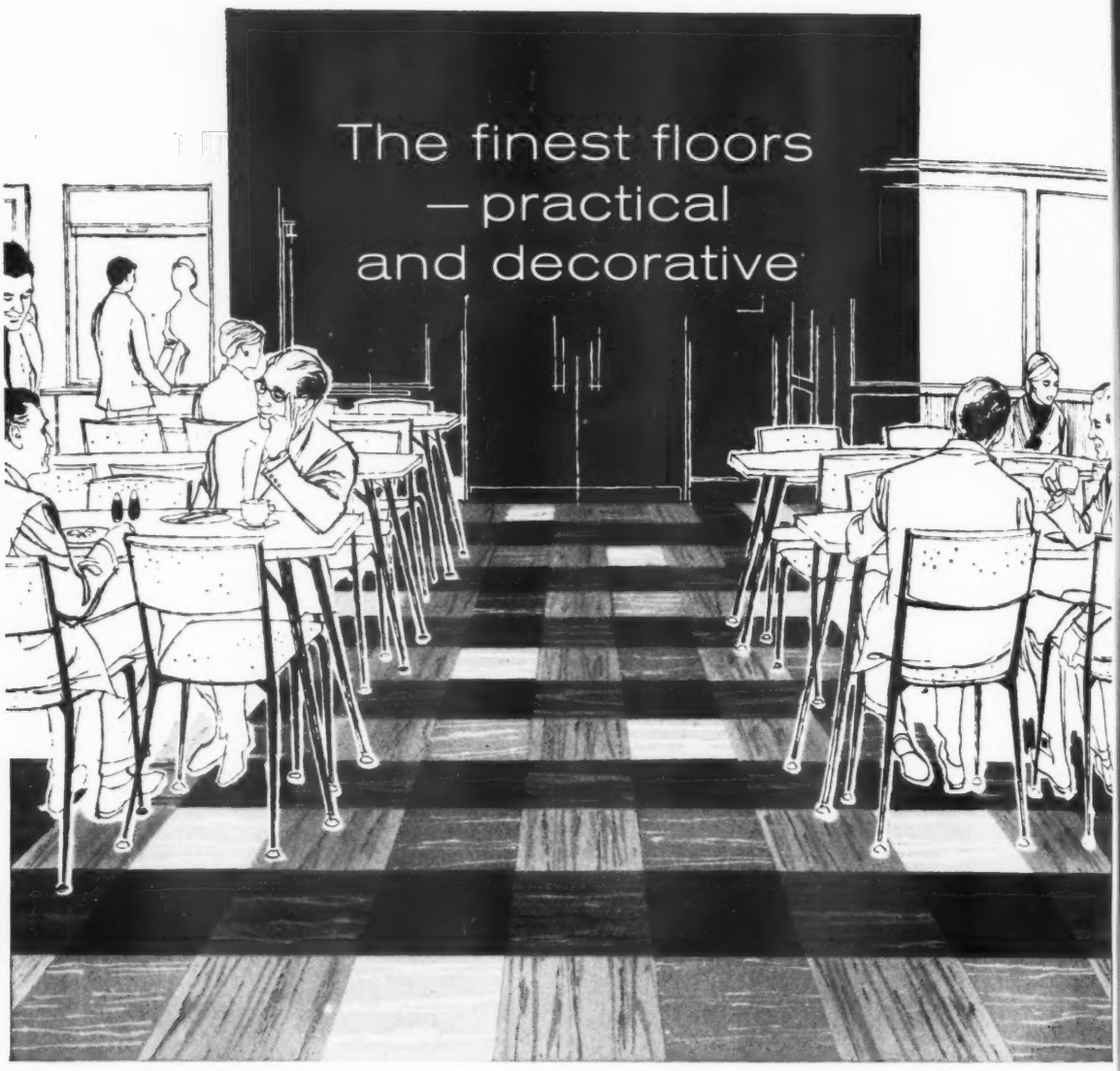
S.S. "Oriana"
S.S. "Empress of Canada"
S.S. "Olympia"



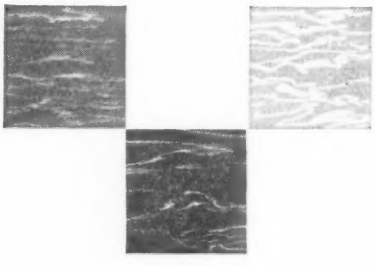
Cinema on the R.M.S. "Windsor Castle"

COX & CO. (WATFORD) LTD.

WATFORD BY-PASS · WATFORD · HERTS Telephone: WATford 28541



SEMFLEX TILES WERE CHOSEN FOR THE STAFF RESTAURANT, COUNTY FIRE OFFICE LTD., REGENT STREET, W.1.



This is only one of the wide range of Semtex flooring materials, giving unlimited scope for any application.

- ✳ Excellent choice of decorative colours.
- ✳ Backed by the vast research facilities of the Semtex Organisation. Expert assistance on pre-treatment and other flooring problems.
- ✳ Skilled laying service through Semtex branches or approved contractors throughout the U.K.
- ✳ Contracting facilities also available throughout the world.
- ✳ Design consultancy service.

For further details please contact Semtex today.

IMAGINATIVE MODERN FLOORING

Semtex Ltd

8 SEMTEX HOUSE · 19/20 BERNERS STREET · LONDON W1 · Telephone—LANgham 0401

CPM/61/st/ck

AN IMPORTANT NEW PUBLICATION WRITTEN FOR ARCHITECTS

by **Richard Eve**, B. ARCH (McGill), A.R.I.B.A.
with 350 illustrations by Bernard Myers, A.R.C.A.

This unique publication covers all modern techniques used in heating homes, from basic principles through to completion of design. The GUIDE thus brings together in one single volume all essential information on problems of heating.
The GUIDE is divided into 12 sections, each of which can be separately extracted when required for on-site reference.

1 Oil for domestic heating
2 Heat and comfort
3 Domestic hot water supply
4 Space heating by hot water
5 Heat loss calculations
6 Pipe and pump calculations
7 Embedded coil panel heating
8 Space heating by warm air
9 Burners, boiler units and ancillaries
10 Conversion to oil
11 Estimating the cost
12 Testing and servicing

ORDER YOUR COPY NOW PRICE FOUR GUINEAS

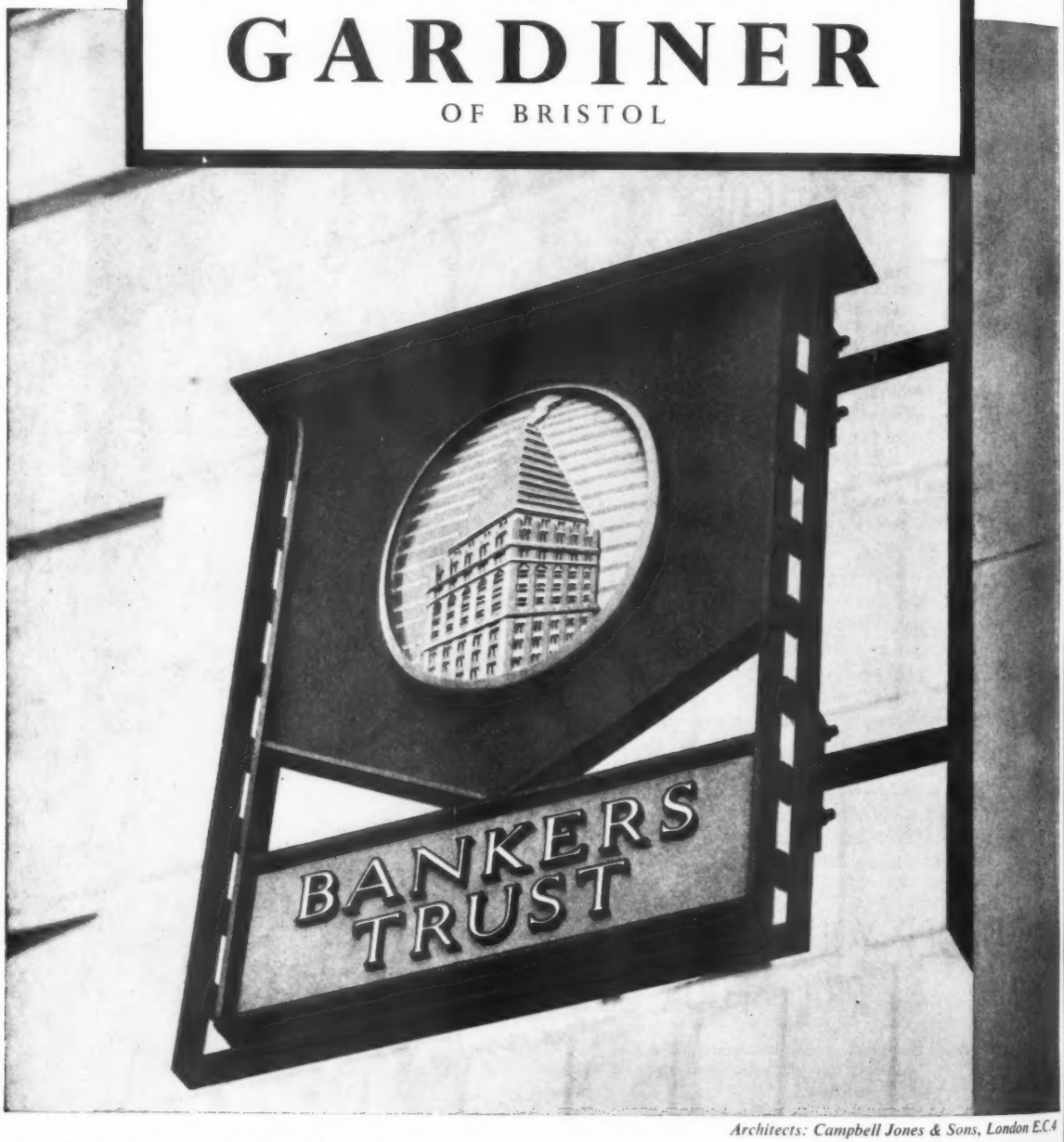
from Esso Petroleum Company, Limited
ASP Dept, 36 Queen Anne's Gate, London SW1

Cheques should be made payable to Esso Petroleum Company, Limited

ARCHITECTURAL METALWORK BY

GARDINER

OF BRISTOL



Architects: Campbell Jones & Sons, London E.C.4

Our Technical Advisory Department is always available, write, phone or call:

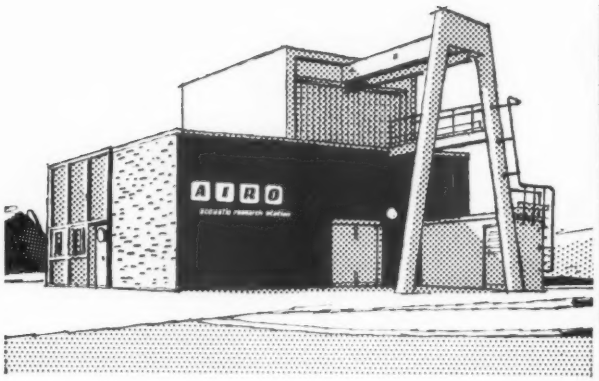
Gardiner, Sons & Co. Ltd., G.P.O. Box No. 140, Broad Plain, Bristol 2, and 8 William IV Street, Strand, London W.C.2.

LINOLEUM *belongs to Modern Living*

With acknowledgements to the B.B.C.

Ask any architect—he will tell you that today linoleum is one of the most versatile weapons in his creative armoury. Its applications are so wide. It expresses brilliantly the mood of any decorative theme—contemporary or period. And a constant flow of new colours and styles gives scope for endless variety of 'personalised' and novel designs. In other ways, too, linoleum belongs to modern living. It is so easy to care for—so quick to clean. It is quiet to the tread and no flooring equals linoleum for long wear . . . Always plan for linoleum. *Illustrated left: the B.B.C. Television Centre at White City makes extensive use of today's finest flooring—linoleum.*

"THELMA" stands for THE LINOLEUM MANUFACTURERS' ASSOCIATION, 127 VICTORIA STREET LONDON, S.W.1. *For further information write to the Association or to any of the following members:* **BARRY OSTLERE & SHEPHERD LTD.**, Kirkcaldy · **DUNDEE LINOLEUM CO. LTD.**, Dundee **LINOLEUM MANUFACTURING CO. LTD.**, 6 Old Bailey, London, E.C.4 · **MICHAEL NAIRN & CO. LTD.**, Kirkcaldy · **NORTH BRITISH LINOLEUM CO. LTD.**, Dundee · **SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LTD.**, Falkland, Fife · **JAS. WILLIAMSON & SON LTD.**, Lancaster.



AIRO

A Consulting and Research Service on Acoustical Problems in Building

AIRO is an independent consulting organisation which provides facilities for Architects, Local Authorities, Government Departments and Industrialists in various fields of Acoustics.

These include building acoustics, noise control, acoustical measurements, calibration and research and development projects.

AIRO operates a consultative and Field Service and an Acoustics Laboratory where standard electro-acoustic measurements are carried out.

Experience has proved that co-operation with Architects at planning stage is of great benefit in reducing subsequent costs and revisions.

Architects are therefore invited to request early collaboration on acoustical design and noise reduction and matters in connection with Auditoria, Theatres, Studios, Cinemas, Schools, Hotels, Offices, Buildings, Flats, etc.

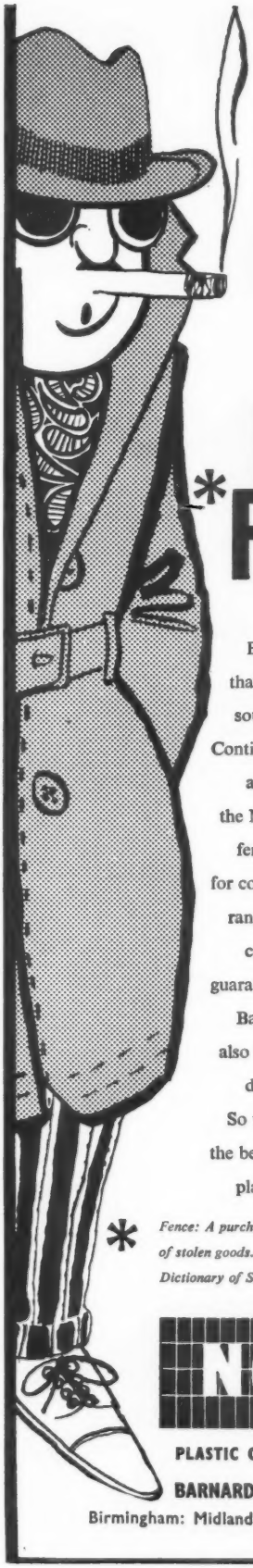
You are requested to contact:

ACOUSTICAL INVESTIGATION AND RESEARCH ORGANISATION LIMITED

118 CROMWELL ROAD, LONDON, S.W.7

Tel: FREMANTLE 5101

AP 451



NEED A GOOD *FENCE?

Experienced operators know that they're a site better off with a sound, reliable and economical fence. Continuous testing and development at Barnards has now produced the Norvic plastic-covered chain-link fencing – far ahead of its rivals for consistent quality and wide colour range. And Barnards are the only company who are prepared to guarantee this fencing for fifteen years. Barnards' service organisation is also first-class and delivery is swift and dependable.

So when you need a fence, specify the best; specify Barnards' Norvic plastic-covered chain-link fencing.

* *Fence: A purchaser or receiver, and/or a storer of stolen goods.—*
Dictionary of Slang and Unconventional English.

NORVIC

PLASTIC COVERED CHAIN LINK FENCING

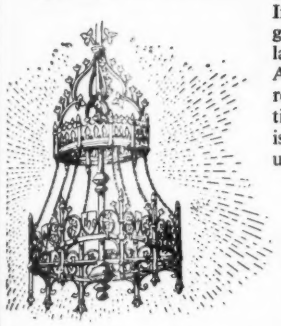
BARNARDS LTD. · NORWICH · TEL. 47321

Birmingham: Midland 3555 · London: Mansion House 8597

WT/81282

1810

150 years of advancement



In 1810 we made this early type of ecclesiastical chandelier fitted for gas when it was the last word in elegant efficiency. Today—150 years later in our progressive services used by the United Kingdom Atomic Energy Authority and by many large manufacturers, it remains a symbol of the traditions of Z. D. Berry & Sons—traditions of quality and craftsmanship. It is also a reminder that nothing is new for long; that progress demands constant effort and an unrelenting search for newer ideas and techniques.

1960

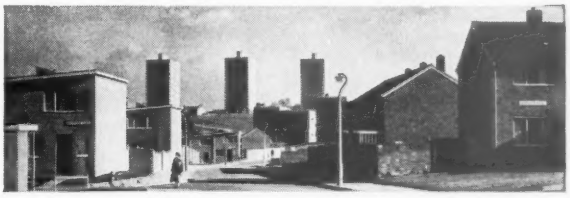
ENGINEERING SERVICES by

Z.D.BERRY & SONS LTD. Founded 1810

HEATING, VENTILATING, AIR CONDITIONING
PLUMBING, INDUSTRIAL PIPEWORK
Z.D. BERRY & SONS LTD., 16 REGENCY ST., LONDON, S.W.1 and at WARRINGTON & DONCASTER

TAS:ZB.30

Photograph of Gleadless Valley Estate by courtesy of the Sheffield City Architect, J. L. Womersley, F.R.I.B.A., Dist. T.P., M.T.P.I.



Many progressive local authorities specify

Sissons stainless steel sinks

Homes on Sheffield's new, widely acclaimed Council estates at Gleadless Valley, Greenhill, Netherthorpe and Park Hill have stainless steel sinks made by Sissons.

Why are these products specified by Sheffield, and other local authorities too?

Because of* 1. *Low initial cost
(see Sissons special housing contract prices).

2. ***Saving in maintenance costs***
(no chipping, no cracking, no breaking).

3. ***Long life***
(heavy gauge (18 S.W.G.) material)

The sinks usually specified are "made-in-one-piece" round bowl models. There are several standard sizes, but where quantities warrant, non-standard sizes can be produced at comparable prices.

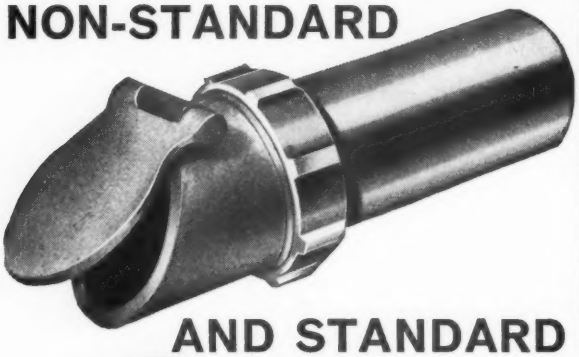
May we send further details?
Please write quoting Reference No. R.2.

SISSONS
SHEFFIELD

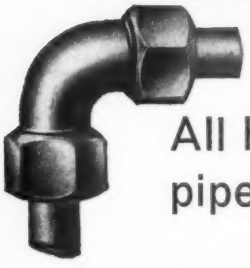
SISSONS

W. & G. SISSONS LTD. · ST. MARY'S ROAD · SHEFFIELD 2 · TEL: 22118 OA/6709

NON-STANDARD



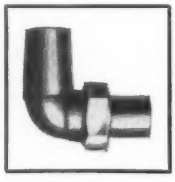
AND STANDARD TOO



All high standard pipe fittings from

KONTITE

Kontite's range of over 22,000 different types and sizes of fittings for copper tube is the biggest in the business. Many of these can be supplied straight from stock. Specials take only a little longer. That's what makes Kontite service the *best* in the business. First-class materials and the proved efficiency of Kontite Gunmetal fittings are your guarantee of complete reliability.



APPROVED TO BRITISH STANDARD

KAY & CO. (ENGINEERS) LTD.
BOLTON BRASS WORKS · BOLTON · LANCS.
TELEPHONE: BOLTON 21041/4

A MEMBER OF THE ALENCO GROUP OF COMPANIES

Complete kitchen and servery Installations? *Specify . . . .*

MOORWOOD-VULCAN

Moorwood–Vulcan produce a comprehensive range of large-scale catering equipment and complete kitchen installations of the highest quality. The serving counter and other equipment illustrated are part of a new industrial canteen equipped by Moorwood–Vulcan. We shall be pleased to let you have full details of the Moorwood–Vulcan service.

MOORWOOD-VULCAN LTD

FOR PEOPLE WHO ARE SATISFIED WITH THE BEST

HARLESTON STREET, SHEFFIELD, 4
Phone: SHEFFIELD 23063 (4 lines)
London Office: VINCENT HOUSE, VINCENT SQUARE, S.W.1
Phone: Tate Gallery 2591

KEMPTON

modern
central
heating
ventilating
steam
and
hot
water
installations

C. H. KEMPTON & CO. LTD.,
Willoughby Lane, Tottenham, London, N.17. Telephone: TOTtenham 1141/3
Heating Division of The William Press Group.

TEAK
TURNER
AND
HARDWOODS
HUNTERS

R. M. TURNER and HUNTERS Ltd.

Established 1802

Wansbeck Road, Victoria Park, London, E.9.

Telephone: Amherst 8221 (5 lines) and at Aldermaston

BLOCK K3
BASILDON TOWN CENTRE
Basildon Development Corporation

Stilphon 20 was chosen for underfloor insulation by the architect for this striking 14 storey block of flats because it has been specially designed to the ideal specification for this purpose.

Stilphon 20 Insulating Mat is specially prepared from mineral wool of a density which will maintain good insulation under the load of a concrete screed. For full particulars and recommendations for floating floor and underfloor heating insulation ask for Technical Data 23.

Acknowledgements: Chief Architect/Planner : Antony B. Davies
General Contractors: Holland Hannen and Cubitts (G.B.) Ltd.

STILLITE

Regd. Trade Mark

STILLITE PRODUCTS LTD., 15 WHITEHALL, LONDON, S.W.1 Tel. WHitehall 0922/7

A member of the TURNER & NEWALL GROUP

Printed in Great Britain by Unwin Brothers Ltd., Woking and London
All communications regarding Advertisements in this Journal should be addressed to the Advertisement Manager, R.I.B.A., 66 Portland Place, London, W.1
Telephone: Langham 2271

Lightweight ventilation

Special glazing type pitched roof unit, incorporating moulded steps for maintenance and permanent access to roof sheeting above glass. Illustration shows 24" unit replacing two sheets of glass approx. 7' 3" long x 4' 0" wide.

BROOKS

MOULDED GLASS-FIBRE FAN-POWERED VENTILATION UNITS

POLYESTER RESIN BONDED • FIRE RETARDING • NON-CORROSIVE

are standard for

TURNERS BIG-SIX — TRAFFORD TILE — COMBINED SHEETING — DOUBLE SIX — LARGE-SPAN COMBINED SHEETING

DECKINGS — ASBESTOS — METAL — WOODWOOL SLAB

GLAZING MOUNTING — PITCHED SLATED AND BOARDED

FLAT ROOFS — CONCRETE — TIMBER

also

CHEMICAL FUME UNITS WITH POLYTHENE COATED FANS
in six sizes — 6 inch to 19 inch diameter

SMALL CAPACITY LOW PRICED GENERAL PURPOSE UNITS
Flat Base and Curb Types

THE NELSON (400 cfm) —— THE TRAFALGAR (750 cfm)

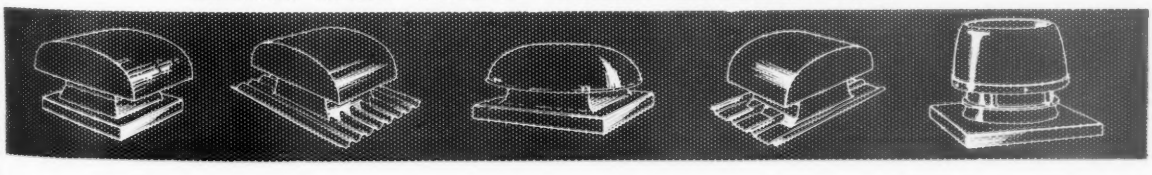
SPECIALS —— TO SUIT SPECIFIC REQUIREMENTS
as typical unit illustrated above

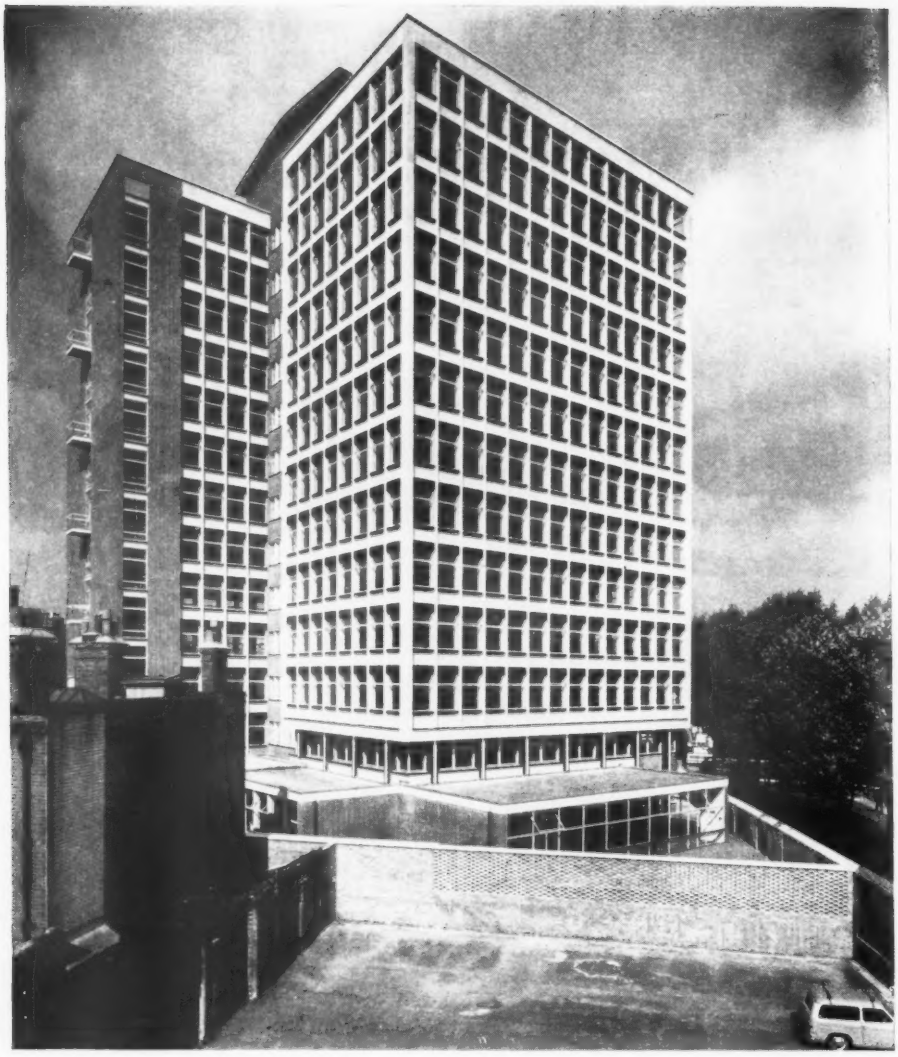
For further details please write to:

BROOKS VENTILATION UNITS LIMITED

TRAFALGAR HOUSE, BEDFORD PARK, CROYDON, SURREY · Telephone: MUNicipal 2361 (6 lines)
Showrooms: 9 GREAT NEWPORT STREET · LONDON W.C.2 Telephone: COVent Garden 1355
Branch Office and Showrooms: CROMFORD HOUSE · CROMFORD COURT · MANCHESTER 4 Tel: DEAnsgate 2920

BRITAIN'S WIDEST RANGE OF POWERED VENTILATION UNITS





Planet House, Paddington Street, W.1. *R. Seifert & Partners, Architects*

. . .

Makers of

STEEL & BRONZE WINDOWS, "ALL CLEAR" SLIDING & SOUNDPROOF WINDOWS, LANTERN LIGHTS, DOMES, ORNAMENTAL METALWORK, ETC.

C. E. WELSTEAD LTD.

St. Andrew's Works.
TANFIELD ROAD
CROYDON
CRO. 3484/5